Levy
09/617566

Query 3
N,N-methylene-bis-diglycidylaniline

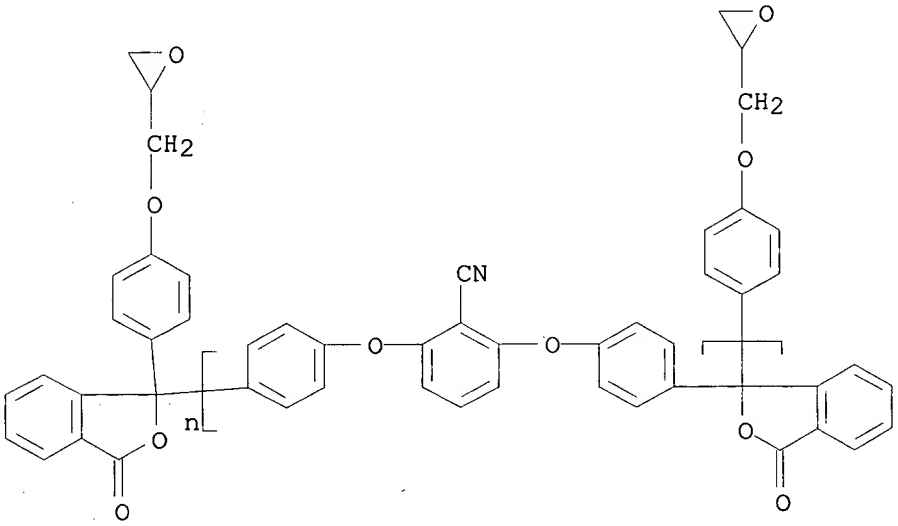
FILE 'REGISTRY' ENTERED AT 11:18:04 ON 31 MAY 2002

```
=> e "n,n-methylene-bis-diglycidylaniline"/cn 5
E1            1     N,N-METHYL-P-CHLOROBENZAMIDE/CN
E2            1     N,N-METHYLDECYLCARBAMOYL CHLORIDE/CN
E3            0 --> N,N-METHYLENE-BIS-DIGLYCIDYLANILINE/CN
E4            1     N,N-METHYLENEBIS(ACRYLAMIDE)-N-VINYLACETAMIDE COPOLYME
                    R/CN
E5            1     N,N-METHYLENEBIS(ISONIAZIDE)/CN

=> e "n,n-bis-methylene-diglycidylaniline"/cn 5
E1            1     N,N-BIS-CYANOMETHYL CINNAMIDE/CN
E2            1     N,N-BIS-CYANOMETHYL PHENYLPROPIOLAMIDE/CN
E3            0 --> N,N-BIS-METHYLENE-DIGLYCIDYLANILINE/CN
E4            1     N,N-BISACRYLAMIDE/CN
E5            1     N,N-BISDESETHYLFLURAZEPAM/CN

=> e "n,n-bismethylene-diglycidylaniline"/cn 5
E1            1     N,N-BISDESETHYLFLURAZEPAM/CN
E2            1     N,N-BISHYDROXYPROPYL-O-TOLUIDINE/CN
E3            0 --> N,N-BISMETHYLENE-DIGLYCIDYLANILINE/CN
E4            1     N,N-CARBONYLDIIMIDAZOLE/CN
E5            1     N,N-CETYLETHYL MORPHOLINIUM ETHOSULFATE/CN

=> e "n,n-bismethylenediglycidylaniline"/cn 5
E1            1     N,N-BISDESETHYLFLURAZEPAM/CN
E2            1     N,N-BISHYDROXYPROPYL-O-TOLUIDINE/CN
E3            0 --> N,N-BISMETHYLENEDIGLYCIDYLANILINE/CN
E4            1     N,N-CARBONYLDIIMIDAZOLE/CN
E5            1     N,N-CETYLETHYL MORPHOLINIUM ETHOSULFATE/CN

=> e "n,n-methylene-bisdiglycidylaniline"/cn 5
E1            1     N,N-METHYL-P-CHLOROBENZAMIDE/CN
E2            1     N,N-METHYLDECYLCARBAMOYL CHLORIDE/CN
E3            0 --> N,N-METHYLENE-BISDIGLYCIDYLANILINE/CN
E4            1     N,N-METHYLENEBIS(ACRYLAMIDE)-N-VINYLACETAMIDE COPOLYME
                    R/CN
E5            1     N,N-METHYLENEBIS(ISONIAZIDE)/CN


L1      1021376 SEA FILE=REGISTRY ABB=ON  PLU=ON  ?METHYLENE?/CNS
L2           38 SEA FILE=REGISTRY ABB=ON  PLU=ON  ?GLYCIDYLANILIN?/CNS
L3            7 SEA FILE=REGISTRY ABB=ON  PLU=ON  L1(S)L2


L3   ANSWER 1 OF 7  REGISTRY  COPYRIGHT 2002 ACS
RN   200441-31-2  REGISTRY
CN   Oxiranemethanamine, N,N'-(methylenedi-4,1-phenylene)bis[N-
     (oxiranylmethyl)-, polymer with .alpha.-[4-(oxiranylmethoxy)phenyl]-
     .omega.-[1,3-dihydro-1-[4-(oxiranylmethoxy)phenyl]-3-oxo-1-
     isobenzofuranyl]poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-
     phenyleneoxy(2-cyano-1,3-phenylene)oxy-1,4-phenylene] and
     4,4'-sulfonylbis[benzenamine] (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Benzenamine, 4,4'-sulfonylbis-, polymer with N,N'-(methylenedi-4,1-
     phenylene)bis[N-(oxiranylmethyl)oxiranemethanamine] and
     .alpha.-[4-(oxiranylmethoxy)phenyl]-.omega.-[1,3-dihydro-1-[4-
     (oxiranylmethoxy)phenyl]-3-oxo-1-isobenzofuranyl]poly[(3-oxo-1(3H)-
     isobenzofuranylidene)-1,4-phenyleneoxy(2-cyano-1,3-phenylene)oxy-1,4-
```

phenylene] (9CI)
CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy(2-cyano-1,3-phenylene)oxy-1,4-phenylene], .alpha.-[4-(oxiranylmethoxy)phenyl]-.omega.-[1,3-dihydro-1-[4-(oxiranylmethoxy)phenyl]-3-oxo-1-isobenzofuranyl]-, polymer with N,N'-(methylenedi-4,1-phenylene)bis[N-(oxiranylmethyl)oxiranemethanamine] and 4,4'-sulfonylbis[benzenamine] (9CI)
OTHER NAMES:
CN **4,4'-Methylenebis(N,N-diglycidylaniline)-4,4'-diaminodiphenyl sulfone-E PCE copolymer**
MF ((C27 H15 N O4)n C26 H22 O6 . C25 H30 N2 O4 . C12 H12 N2 O2 S)x
CI PMS
PCT Epoxy resin, Polyamine, Polyether, Polyether
SR CA
LC STN Files: CA, CAPLUS

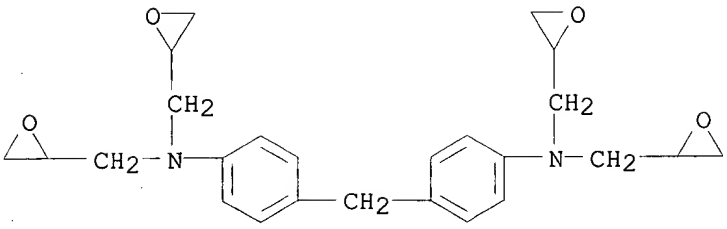
CM 1

CRN 200441-29-8
CMF (C27 H15 N O4)n C26 H22 O6
CCI PMS



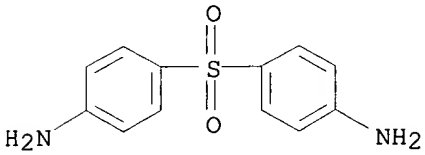
CM 2

CRN 28768-32-3
CMF C25 H30 N2 O4



CM 3

CRN 80-08-0
CMF C12 H12 N2 O2 S



3 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:267199

REFERENCE 2: 129:190020

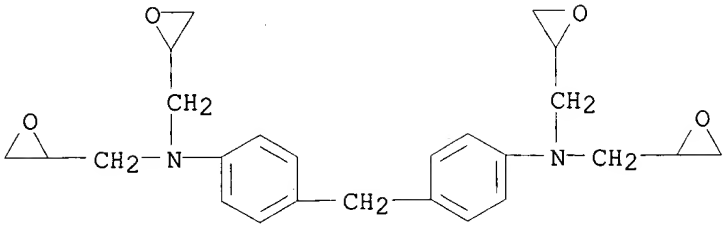
REFERENCE 3: 128:62125

L3 ANSWER 2 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 191356-23-7 REGISTRY
CN 1H-Pyrrole-2,5-dione, 1,1'-(methylenedi-4,1-phenylene)bis-, polymer with N,N'-(methylenedi-4,1-phenylene)bis[N-(oxiranylmethyl)oxiranemethanamine] and 4,4'-sulfonylbis[benzenamine] (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzenamine, 4,4'-sulfonylbis-, polymer with N,N'-(methylenedi-4,1-phenylene)bis[N-(oxiranylmethyl)oxiranemethanamine] and 1,1'-(methylenedi-4,1-phenylene)bis[1H-pyrrole-2,5-dione] (9CI)
OTHER NAMES:
CN **4,4'-Methylenebis[N,N-diglycidylaniline]-N,N'-(methylenedi-p-phenylene)bismaleimide-4,4'-sulfonyldianiline copolymer**
MF (C25 H30 N2 O4 . C21 H14 N2 O4 . C12 H12 N2 O2 S)x
CI PMS
PCT Epoxy resin, Polyamine, Polyamine formed, Polyimide, Polysulfone, Polyvinyl
SR CA
LC STN Files: CA, CAPLUS

CM 1

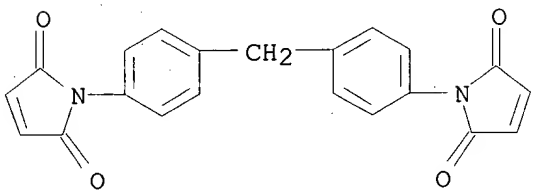
CRN 28768-32-3

CMF C25 H30 N2 O4



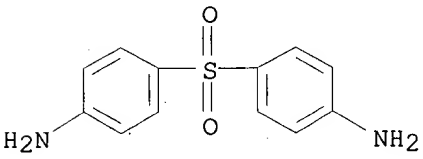
CM 2

CRN 13676-54-5
CMF C21 H14 N2 O4



CM 3

CRN 80-08-0
CMF C12 H12 N2 O2 S



4 REFERENCES IN FILE CA (1967 TO DATE)
4 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:310478

REFERENCE 2: 130:154320

REFERENCE 3: 129:109643

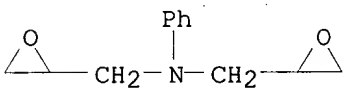
REFERENCE 4: 127:66605

L3 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 110430-27-8 REGISTRY
CN Oxiranemethanamine, N-(oxiranylmethyl)-N-phenyl-, polymer with

4,4'-methylenebis[benzenamine] (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzenamine, 4,4'-methylenebis-, polymer with N-(oxiranylmethyl)-N-phenyloxiranemethanamine (9CI)
OTHER NAMES:
CN **Diglycidylaniline-methylenedianiline copolymer**
MF (C13 H14 N2 . C12 H15 N O2)x
CI PMS
PCT Epoxy resin, Polyamine, Polyother
SR CA
LC STN Files: CA, CAPLUS

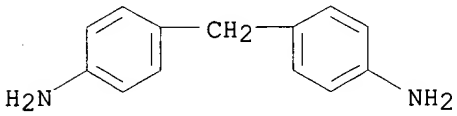
CM 1

CRN 2095-06-9
CMF C12 H15 N O2



CM 2

CRN 101-77-9
CMF C13 H14 N2



10 REFERENCES IN FILE CA (1967 TO DATE)
10 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:30982

REFERENCE 2: 131:244075

REFERENCE 3: 122:57397

REFERENCE 4: 117:172578

REFERENCE 5: 116:175373

REFERENCE 6: 115:281251

REFERENCE 7: 115:281110

REFERENCE 8: 110:193816

REFERENCE 9: 109:75330

REFERENCE 10: 107:135200

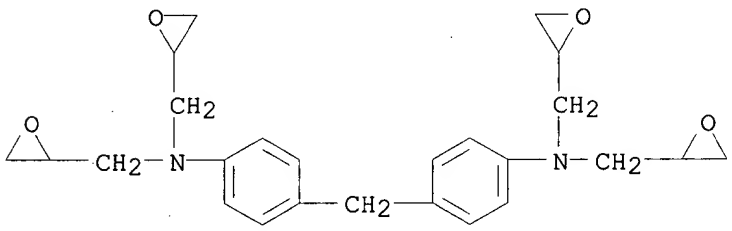
Searcher : Shears 308-4994

L3 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 63804-34-2 REGISTRY
CN Oxiranemethanamine, N,N'-(methylenedi-4,1-phenylene)bis[N-(oxiranylmethyl)-, polymer with 4,4'-sulfonylbis[benzenamine] (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzenamine, 4,4'-sulfonylbis-, polymer with N,N'-(methylenedi-4,1-phenylene)bis[N-(oxiranylmethyl)oxiranemethanamine] (9CI)
OTHER NAMES:
CN 4,4'-Diaminodiphenyl sulfone-MY 720 copolymer
CN 4,4'-Diaminodiphenyl sulfone-N,N,N',N'-tetraglycidyl-4,4'-diaminodiphenylmethane polymer
CN 4,4'-Diaminodiphenyl sulfone-N,N,N',N'-tetraglycidyl-4,4'-diaminodiphenylmethane copolymer
CN 4,4'-Diaminodiphenyl sulfone-tetraglycidyl-4,4'-diaminodiphenylmethane copolymer
CN 4,4'-Diaminodiphenyl sulfone-tetraglycidyldiaminodiphenylmethane copolymer
CN 4,4'-Diaminodiphenyl sulfone-tetraglycidyldiaminophenylmethane copolymer
CN 4,4'-Diaminodiphenylmethane tetraglycidyl ether-4,4'-diaminodiphenyl sulfone copolymer
CN **4,4'-Methylenebis(N,N-diglycidylaniline)-4,4'-sulfonyldianiline copolymer**
CN 4,4'-Sulfonyldianiline-tetraglycidylmethylenedianiline copolymer
CN AG 80-4,4'-diaminodiphenyl sulfone copolymer
CN Ag 80-DDS copolymer
CN Araldite HT 976-Araldite MY 720 copolymer
CN Araldite HT 976-Araldite MY 721 copolymer
CN Araldite HT 976-Araldite MY 9512 copolymer
CN Araldite MY 720-4,4'-diaminodiphenyl sulfone copolymer
CN Araldite MY 720-DDS copolymer
CN Araldite MY 720-diaminodiphenylsulfone copolymer
CN Araldite MY 721-DDS copolymer
CN Araldite MY-720-4,4'-sulfonylbis(benzamine) copolymer
CN AS 3501-5
CN Ciba 6376
CN DDS-N,N,N',N'-tetraglycidyl-4,4'-diaminodiphenylmethane copolymer
CN DDS-tetraglycidyldiaminodiphenylmethane copolymer
CN DDS-TGDDM copolymer
CN Diaminodiphenyl sulfone-tetraglycidyldiaminodiphenylmethane copolymer
CN F 263
CN F 922
CN Fiberite HY-E 334A
CN Fiberite HY-E 9176B
CN Fiberite HY-E/HMF 1034K
CN Fibredux 6376
CN Fibredux F 922
CN Grafil HC 3501
CN H 3501-6
CN Hercules 3501
CN Hercules 3501-6
CN Hexcel F 263
CN HT 976-MY 720 copolymer
CN Lopox 152
CN Magnamite 3501

CN Magnamite 3501-6
CN Magnamite AS 3501-5
CN MCL-E 679
CN MY 9663-HT 976 copolymer
CN Tetraglycidyl-4,4'-diaminodiphenylmethane-DDS copolymer
CN TGDDM-DDS copolymer
CN Toray 3601
CN Toray 3900-2
CN Torayca 3900-2
DR 126904-10-7, 56939-95-8, 112993-20-1, 61584-22-3, 62067-68-9, 136071-46-0, 136753-42-9, 68202-07-3, 70896-25-2, 75662-04-3, 160675-03-6
MF (C25 H30 N2 O4 . C12 H12 N2 O2 S)x
CI PMS
PCT Epoxy resin, Polyamine, Polyether
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

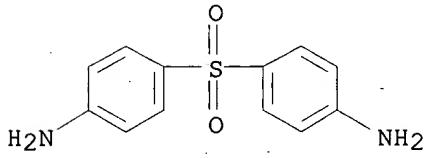
CM 1

CRN 28768-32-3
CMF C25 H30 N2 O4



CM 2

CRN 80-08-0
CMF C12 H12 N2 O2 S



869 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
871 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:341401

REFERENCE 2: 136:326462

REFERENCE 3: 136:310478

Searcher : Shears 308-4994

REFERENCE 4: 136:295451

REFERENCE 5: 136:295437

REFERENCE 6: 136:280066

REFERENCE 7: 136:264060

REFERENCE 8: 136:263799

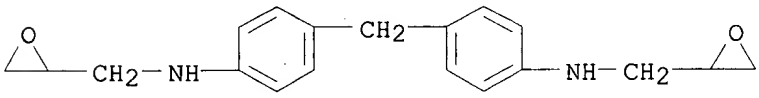
REFERENCE 9: 136:248571

REFERENCE 10: 136:248345

L3 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 34229-69-1 REGISTRY
CN Oxiranemethanamine, N,N'-(methylenedi-4,1-phenylene)bis-, homopolymer (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aniline, 4,4'-methylenebis[N-(2,3-epoxypropyl)-, polymers (8CI)
OTHER NAMES:
CN **p,p'-Methylenebis(N,N'-diglycidylaniline) polymer**
CN **p,p'-Methylenebis(N,N'-diglycidylaniline) resin**
MF (C19 H22 N2 O2)x
CI PMS
PCT Epoxy resin, Polyamine
LC STN Files: CA, CAPLUS

CM 1

CRN 47311-06-8
CMF C19 H22 N2 O2



2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 114:208853

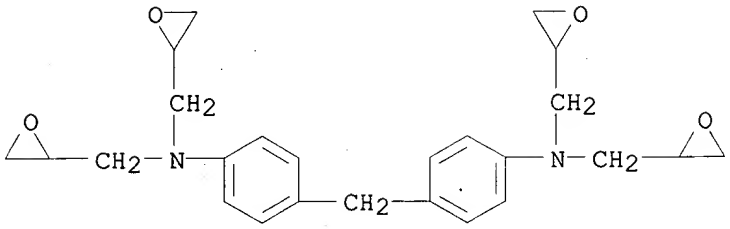
REFERENCE 2: 76:100471

L3 ANSWER 6 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 31305-94-9 REGISTRY
CN Oxiranemethanamine, N,N'-(methylenedi-4,1-phenylene)bis[N-(oxiranylmethyl)-, homopolymer (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aniline, 4,4'-methylenebis[N,N-bis(2,3-epoxypropyl)-, polymers (8CI)
OTHER NAMES:
CN **4,4'-Methylenebis(N,N-diglycidylaniline) polymer**
CN 4,4'-Methylenebis[N,N-bis(2,3-epoxypropyl)aniline] polymer
CN **4,4-Dimethylene-bis-(N,N-diglycidylaniline)-polymer**
CN AG 80

CN Araldite MY 720
CN Araldite MY 721
CN Araldite MY 9512
CN Araldite MY 9612
CN Bis[4-(diglycidylamino)phenyl]methane polymer
CN Carboform
CN CIBA 914
CN CTD 112P
CN ELM 434
CN EP 760
CN Epiclon 430
CN Epikote 604
CN Epikote 604L
CN Epo Tohto YH 434
CN Epo Tohto YH 434L
CN Epon HPT 1077
CN F 914
CN Fiberite 976
CN Fiberite HY-E 1076E
CN Fibredux 914
CN Fibredux 924
CN Glyamine G 120
CN Hi-Epoxy YH 343
CN HY-E 1076E
CN Lopox 3302
CN Lopox B 3302
CN MXB 7203
CN MY 720
CN MY 721
CN MY 9512
CN MY 9612
CN MY 9634
CN MY 9655
CN MY 9663
CN N,N,N',N'-Tetraglycidyl-4,4'-diaminodiphenylmethane homopolymer
CN N,N,N',N'-Tetraglycidyl-4,4'-diaminodiphenylmethane polymer
CN N,N,N',N'-Tetraglycidyldiaminodiphenylmethane homopolymer
CN N,N,N',N'-Tetraglycidyldiaminodiphenylmethane polymer
CN NPEH 434
CN Poly(N,N,N',N'-tetraglycidyl-4,4'-diaminodiphenylmethane)
CN Poly(tetraglycidyldiaminodiphenylmethane)
CN Rutapox 2895LV
CN Rutapox VE 2895LV
CN Sumiepoxy ELM 434
CN T 300/914
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 123242-88-6, 95470-87-4, 74565-09-6, 74811-74-8, 71751-54-7, 75634-45-6, 153796-25-9, 154214-07-0, 143928-29-4, 87503-22-8, 87658-78-4
MF (C25 H30 N2 O4)x
CI PMS, COM
PCT Epoxy resin, Polyamine
LC STN Files: CA, CAPLUS, CASREACT, CHEMLIST, CIN, IFICDB, IFIPAT, IFIUDB, PIRA, PLASPEC*, PROMT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

CM 1

CRN 28768-32-3
CMF C25 H30 N2 O4



940 REFERENCES IN FILE CA (1967 TO DATE)
72 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
948 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:326421

REFERENCE 2: 136:287752

REFERENCE 3: 136:280743

REFERENCE 4: 136:248740

REFERENCE 5: 136:248723

REFERENCE 6: 136:200799

REFERENCE 7: 136:184605

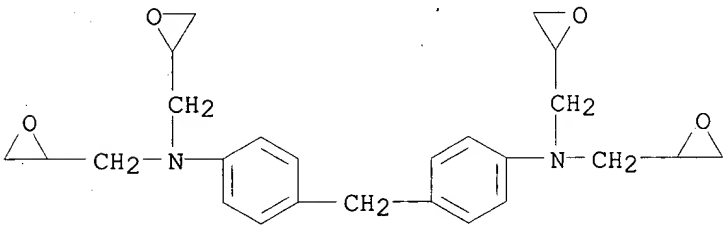
REFERENCE 8: 136:184498

REFERENCE 9: 136:167839

REFERENCE 10: 136:135617

L3 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 28768-32-3 REGISTRY
CN Oxiranemethanamine, N,N'-(methylenedi-4,1-phenylene)bis[N-(oxiranylmethyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aniline, 4,4'-methylenebis[N,N-bis(2,3-epoxypropyl)- (6CI, 8CI)
OTHER NAMES:
CN **4,4'-Methylenebis[N,N-diglycidylaniline]**
CN Bis[4-(diglycidylamino)phenyl]methane
CN N,N,N',N'-Tetraglycidyl-4,4'diaminodiphenylmethane
CN N,N,N',N'-Tetraglycidylbis(p-aminophenyl)methane
CN Tetraglycidyl 4,4'-diaminodiphenylmethane
CN Tetraglycidyl methylenedianiline
FS 3D CONCORD
MF C25 H30 N2 O4
CI COM
LC STN Files: ANABSTR, BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CSNB, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, SPECINFO, TOXCENTER, USPATFULL

(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

245 REFERENCES IN FILE CA (1967 TO DATE)
55 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
245 REFERENCES IN FILE CAPLUS (1967 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:280403

REFERENCE 2: 136:224291

REFERENCE 3: 136:172756

REFERENCE 4: 136:20730

REFERENCE 5: 135:371472

REFERENCE 6: 135:228314

REFERENCE 7: 135:211815

REFERENCE 8: 135:68620

REFERENCE 9: 135:68619

REFERENCE 10: 135:46932

```
                E SILVER/CN
L4            9 S E3 OR E14-E19 OR E21 OR E22
                E COPPER/CN
L5            4 S E3 OR E10-E12
                E SILVER IODIDE/CN
L6           15 S E3-E18
L7           28 S L4 OR L5 OR L6

=> e benzalkonium/cn 5
E1           1     BENZALISONITROSOACETONE P-NITROPHENYLHYDRAZONE/CN
E2           1     BENZALKON A/CN
E3           0 --> BENZALKONIUM/CN
```

Searcher : Shears 308-4994

```
E4            1     BENZALKONIUM BROMIDE/CN
E5            1     BENZALKONIUM CHLORIDE/CN

=> s e4-e5
              1 "BENZALKONIUM BROMIDE"/CN
              1 "BENZALKONIUM CHLORIDE"/CN
L8            2 ("BENZALKONIUM BROMIDE"/CN OR "BENZALKONIUM CHLORIDE"/CN)

=> d 1-2 ide can

L8   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2002 ACS
RN   8043-47-8  REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN
  files may result in incomplete search results.  For additional
  information, enter HELP RN* at an online arrow prompt (=>).
CN   Quaternary ammonium compounds, alkylbenzyldimethyl, bromides  (CA
     INDEX NAME)
OTHER NAMES:
CN   Alkylbenzyldimethylammonium bromides
CN   Benzalkonium bromide
CN   Bromogeramine
CN   G 12
MF   Unspecified
CI   MAN, CTS
LC   STN Files:   BIOSIS, EMBASE, IPA, TOXCENTER

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L8   ANSWER 2 OF 2  REGISTRY  COPYRIGHT 2002 ACS
RN   8001-54-5  REGISTRY *
* Use of this CAS Registry Number alone as a search term in other STN
  files may result in incomplete search results.  For additional
  information, enter HELP RN* at an online arrow prompt (=>).
CN   Quaternary ammonium compounds, alkylbenzyldimethyl, chlorides  (CA
     INDEX NAME)
OTHER NAMES:
CN   Alkylbenzyldimethylammonium chlorides
CN   Alkyldimethylbenzylammonium chloride
CN   Benzalkon A
CN   Benzalkonium chloride
CN   Bionol
CN   BTC 471
CN   Culversan LC 80
CN   Dimanin A
CN   Genamin KDS
CN   Germ-i-tol
CN   Intexan LB 50
CN   Kemamine BAC
CN   Leda benzalkonium chloride
CN   Magna M 407
CN   Mefarol
CN   Morpan BC 50
CN   Mycosan
CN   Mycosan S
CN   Neo germ-i-tol
CN   Osvan
CN   Osvanwash
CN   Phagomucor
```

CN Preventol R 80
CN Quaternium 1
CN Quatramine 50
CN Rhodaquat RP 50
CN Romergal CB
CN Zephiran
CN Zephiran chloride
DR 12741-06-9, 8011-91-4, 8036-90-6, 8039-63-2, 8045-21-4, 59890-14-1, 75635-12-0, 39434-18-9
MF Unspecified
CI MAN, CTS
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PHARMASEARCH, RTECS*, TOXCENTER, ULIDAT, USAN, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: WHO

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
40 REFERENCES IN FILE CA (1967 TO DATE)
40 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 85:41217

REFERENCE 2: 82:144480

REFERENCE 3: 82:32755

REFERENCE 4: 81:137612

REFERENCE 5: 81:73699

REFERENCE 6: 81:24296

REFERENCE 7: 80:97780

REFERENCE 8: 79:133556

REFERENCE 9: 79:21132

REFERENCE 10: 78:138231

(FILE 'CAPLUS' ENTERED AT 11:22:07 ON 31 MAY 2002)
L1 1021376 SEA FILE=REGISTRY ABB=ON PLU=ON ?METHYLENE?/CNS
L2 38 SEA FILE=REGISTRY ABB=ON PLU=ON ?GLYCIDYLANILIN?/CNS
L3 7 SEA FILE=REGISTRY ABB=ON PLU=ON L1(S)L2
L4 9 SEA FILE=REGISTRY ABB=ON PLU=ON SILVER/CN OR ("SILVER (AG2)"/CN OR "SILVER (AG3)"/CN OR "SILVER (AG31+)"/CN OR "SILVER (AG4)"/CN OR "SILVER (AG5+)"/CN OR "SILVER (AG51+)"/CN) OR "SILVER (AG6)"/CN OR "SILVER (AG7+)"/CN
L5 4 SEA FILE=REGISTRY ABB=ON PLU=ON COPPER/CN OR ("COPPER (CU21+)"/CN OR "COPPER (CU31+)"/CN OR "COPPER (CU4)"/CN)
L6 15 SEA FILE=REGISTRY ABB=ON PLU=ON ("SILVER IODIDE"/CN OR "SILVER IODIDE (107AGI)"/CN OR "SILVER IODIDE (109AGI)"/CN OR "SILVER IODIDE (AG(I3))"/CN OR "SILVER IODIDE (AG125I)"/CN OR "SILVER IODIDE (AG129I)"/CN OR "SILVER IODIDE (AG131I)"/CN OR "SILVER IODIDE (AG2I2)"/CN OR

"SILVER IODIDE (AG2I3)"/CN OR "SILVER IODIDE (AG3I3)"/CN OR "SILVER IODIDE (AG4I)"/CN OR "SILVER IODIDE (AG4I4)"/CN OR "SILVER IODIDE (AG5I6)"/CN OR "SILVER IODIDE (AG6I)"/CN OR "SILVER IODIDE (AG8I)"/CN OR "SILVER IODIDE (AGI)"/CN)

L7	28	SEA FILE=REGISTRY ABB=ON PLU=ON L4 OR L5 OR L6
L8	2	SEA FILE=REGISTRY ABB=ON PLU=ON ("BENZALKONIUM BROMIDE"/CN OR "BENZALKONIUM CHLORIDE"/CN)
L9	2612	SEA FILE=CAPLUS ABB=ON PLU=ON L3 OR (BISMETHYLENEDIGLYCIDYLANILINE OR METHYLENEDIGLYCIDYLANILINE OR DIGLYCIDYLANILINE OR GLYCIDYLANILINE OR (DIGLYCIDYL OR GLYCIDYL)(W)ANILINE OR BISDIGLYCIDYL? OR ?METHYLENE?(S)?GLYCIDYL?)(S)(N(W)N)
L10	198	SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND (L7 OR SILVER OR AG OR COPPER OR CU OR AGI OR METAL###)
L11	0	SEA FILE=CAPLUS ABB=ON PLU=ON L10 AND (L8 OR BENZALKON? OR BENZ? ALKON?)

L1	1021376	SEA FILE=REGISTRY ABB=ON PLU=ON ?METHYLENE?/CNS
L2	38	SEA FILE=REGISTRY ABB=ON PLU=ON ?GLYCIDYLANILIN?/CNS
L3	7	SEA FILE=REGISTRY ABB=ON PLU=ON L1(S)L2
L4	9	SEA FILE=REGISTRY ABB=ON PLU=ON SILVER/CN OR ("SILVER (AG2)"/CN OR "SILVER (AG3)"/CN OR "SILVER (AG31+)"/CN OR "SILVER (AG4)"/CN OR "SILVER (AG5+)"/CN OR "SILVER (AG51+)"/CN) OR "SILVER (AG6)"/CN OR "SILVER (AG7+)"/CN
L5	4	SEA FILE=REGISTRY ABB=ON PLU=ON COPPER/CN OR ("COPPER (CU21+)"/CN OR "COPPER (CU31+)"/CN OR "COPPER (CU4)"/CN)
L6	15	SEA FILE=REGISTRY ABB=ON PLU=ON ("SILVER IODIDE"/CN OR "SILVER IODIDE (107AGI)"/CN OR "SILVER IODIDE (109AGI)"/CN OR "SILVER IODIDE (AG(I3))"/CN OR "SILVER IODIDE (AG125I)"/CN OR "SILVER IODIDE (AG129I)"/CN OR "SILVER IODIDE (AG131I)"/CN OR "SILVER IODIDE (AG2I2)"/CN OR "SILVER IODIDE (AG2I3)"/CN OR "SILVER IODIDE (AG3I3)"/CN OR "SILVER IODIDE (AG4I)"/CN OR "SILVER IODIDE (AG4I4)"/CN OR "SILVER IODIDE (AG5I6)"/CN OR "SILVER IODIDE (AG6I)"/CN OR "SILVER IODIDE (AG8I)"/CN OR "SILVER IODIDE (AGI)"/CN)
L7	28	SEA FILE=REGISTRY ABB=ON PLU=ON L4 OR L5 OR L6
L9	2612	SEA FILE=CAPLUS ABB=ON PLU=ON L3 OR (BISMETHYLENEDIGLYCIDYLANILINE OR METHYLENEDIGLYCIDYLANILINE OR DIGLYCIDYLANILINE OR GLYCIDYLANILINE OR (DIGLYCIDYL OR GLYCIDYL)(W)ANILINE OR BISDIGLYCIDYL? OR ?METHYLENE?(S)?GLYCIDYL?)(S)(N(W)N)
L10	198	SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND (L7 OR SILVER OR AG OR COPPER OR CU OR AGI OR METAL###)
L12	0	SEA FILE=CAPLUS ABB=ON PLU=ON L10 AND (CATHETER? OR TUBING OR TUBE)

L1	1021376	SEA FILE=REGISTRY ABB=ON PLU=ON ?METHYLENE?/CNS
L2	38	SEA FILE=REGISTRY ABB=ON PLU=ON ?GLYCIDYLANILIN?/CNS
L3	7	SEA FILE=REGISTRY ABB=ON PLU=ON L1(S)L2
L4	9	SEA FILE=REGISTRY ABB=ON PLU=ON SILVER/CN OR ("SILVER (AG2)"/CN OR "SILVER (AG3)"/CN OR "SILVER (AG31+)"/CN OR "SILVER (AG4)"/CN OR "SILVER (AG5+)"/CN OR "SILVER (AG51+)"/CN) OR "SILVER (AG6)"/CN OR "SILVER (AG7+)"/CN
L5	4	SEA FILE=REGISTRY ABB=ON PLU=ON COPPER/CN OR ("COPPER

(CU21+)"/CN OR "COPPER (CU31+)"/CN OR "COPPER (CU4)"/CN)
L6 15 SEA FILE=REGISTRY ABB=ON PLU=ON ("SILVER IODIDE"/CN OR "SILVER IODIDE (107AGI)"/CN OR "SILVER IODIDE (109AGI)"/CN OR "SILVER IODIDE (AG(I3))"/CN OR "SILVER IODIDE (AG125I)"/CN OR "SILVER IODIDE (AG129I)"/CN OR "SILVER IODIDE (AG131I)"/CN OR "SILVER IODIDE (AG2I2)"/CN OR "SILVER IODIDE (AG2I3)"/CN OR "SILVER IODIDE (AG3I3)"/CN OR "SILVER IODIDE (AG4I)"/CN OR "SILVER IODIDE (AG4I4)"/CN OR "SILVER IODIDE (AG5I6)"/CN OR "SILVER IODIDE (AG6I)"/CN OR "SILVER IODIDE (AG8I)"/CN OR "SILVER IODIDE (AGI)"/CN)
L7 28 SEA FILE=REGISTRY ABB=ON PLU=ON L4 OR L5 OR L6
L9 2612 SEA FILE=CAPLUS ABB=ON PLU=ON L3 OR (BISMETHYLENEDIGLYCIDYLANILINE OR METHYLENEDIGLYCIDYLANILINE OR DIGLYCIDYLANILINE OR GLYCIDYLANILINE OR (DIGLYCIDYL OR GLYCIDYL)(W)ANILINE OR BISDIGLYCIDYL? OR ?METHYLENE?(S)?GLYCIDYL?)(S)(N(W)N)
L10 198 SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND (L7 OR SILVER OR AG OR COPPER OR CU OR AGI OR METAL###)
L13 8 SEA FILE=CAPLUS ABB=ON PLU=ON L10 AND (BIOCID? OR ANTIMICROB? OR ANTIBACTER? OR BACTERIOCID? OR BACTERICID? OR ANTIINFECT? OR ANTI(W)(MICROB? OR BACTER? OR INFECT?))

L13 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:185504 CAPLUS
DOCUMENT NUMBER: 134:203780
TITLE: Amphiphilic **antimicrobial** film-forming compositions containing biguanide polymers
INVENTOR(S): Sawan, Samuel P.; Subramanyam, Sundar; Yurkovetskiy, Alexander; Brady, Michael J.
PATENT ASSIGNEE(S): Surfacine Development Co., Llc, USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001017357	A1	20010315	WO 2000-US6053	20000308

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-392842 A 19990909
AB The present invention relates to a topical **antimicrobial** compn. contg. an **antimicrobial** complex that provides sustained **antimicrobial** disinfecting action upon contact with microorganisms for prolonged periods, without the necessity for reapplication. The topical **antimicrobial** compn. provides both initial and residual contact-killing disinfecting activity, and

does not release its **antimicrobial** components into contacting liqs. at levels that result in soln. disinfection. The compn. contains an **antimicrobial** biguanide polymer, an anionic compd., and a liq. carrier.

IT **7440-22-4, Silver,** biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(amphiphilic **antimicrobial** film-forming compns. contg.)

IT **28768-32-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of amphiphilic **antimicrobial** film-forming compns.)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:190863 CAPLUS
DOCUMENT NUMBER: 132:227511
TITLE: Topical dermal **antimicrobial** compositions
INVENTOR(S): Sawan, Samuel P.; Subramanyam, Sundar; Yurkovetskiy, Alexander; Manivannan, Gurusamy; Goldblatt, Michael
PATENT ASSIGNEE(S): Surfacine Development Company, LLC, USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000015036	A1	20000323	WO 1999-US20976	19990910
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9962472	A1	20000403	AU 1999-62472	19990910
EP 1111995	A1	20010704	EP 1999-949638	19990910
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.:
US 1998-99925P P 19980911
US 1999-116013P P 19990115
WO 1999-US20976 W 19990910

AB The invention relates to a topical **antimicrobial** compn. contg. an **antimicrobial** complex that provides sustained **antimicrobial** disinfecting action upon contact with microorganisms for prolonged periods, without the necessity for reapplication. The topical compn. comprises a soln. or dispersion of a polymeric **antimicrobial** material, such as a biguanide polymer. The **antimicrobial** polymer is rendered insol. by

coupling with a hydrophobic agent, such as Araldite MY-720, and further complexed with a **silver** salt. The topical **antimicrobial** compn. provides both initial and residual contact-killing disinfecting activity, and does not release its **antimicrobial** components into contacting liqs. at levels that result in soln. disinfection.

IT **7783-96-2D, Silver** iodide, complex with **antimicrobial** biguanide polymers **28768-32-3D**, conjugate with biguanide polymer, complex with **silver** salt
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical dermal **antimicrobial** compn. contg.)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:528981 CAPLUS
DOCUMENT NUMBER: 131:149374
TITLE: Film-forming disinfectant compositions providing sustained **biocidal** action
INVENTOR(S): Sawan, Samuel P.; Subramanyam, Sundar; Yurkovetskiy, Alexander
PATENT ASSIGNEE(S): Surfacine Development Company, Llc, USA
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9940791	A1	19990819	WO 1999-US3050	19990211
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2320134	AA	19990819	CA 1999-2320134	19990211
AU 9925994	A1	19990830	AU 1999-25994	19990211
EP 1054596	A1	20001129	EP 1999-905961	19990211
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6180584	B1	20010130	US 1999-248861	19990211

PRIORITY APPLN. INFO.: US 1998-74456P P 19980212
WO 1999-US3050 W 19990211

AB The invention relates to a compn. that, when applied to a substrate, forms an adherent, transparent, water-insol. polymeric film on the substrate surface that provides sustained **antimicrobial** disinfecting action for prolonged periods, without the necessity for reapplication. The prefered polymers are adduct resins obtained by the reaction of of polyhexamethylenebiguanide-HCl or its free base with bi- or polyfunctional epoxides. The **antimicrobial** agent is **Ag**, **AgI** or **Ag**(NO3). The

coating provides surface disinfecting action by a contact-killing mechanism, and does not release its components into contacting solns. at levels that would result in soln. disinfection. The polymeric film formed by the compn. can be removed by treatment with dil. alc. base. Applications include floors, walls, diapers, surgical gowns, wound dressings, wipes, masks, hospital bed rails and carpets.

IT **7440-22-4, Silver**, biological studies
7783-96-2, Silver iodide
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(film-forming disinfectant compns. contg.)

IT **28768-32-3D**, reaction products with polyhexamethylene biguanide hydrochloride
RL: MOA (Modifier or additive use); USES (Uses)
(film-forming disinfectant compns. for)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:104424 CAPLUS
DOCUMENT NUMBER: 130:155078
TITLE: **Antimicrobial** liquid coating compositions and methods for using them
INVENTOR(S): Sawan, Samuel P.; Shalon, Tadmor; Subramanyam, Sundar; Yurkovetskiy, Alexander
PATENT ASSIGNEE(S): Biopolymerix, Inc, UK; Surfacine Development Company, Inc.
SOURCE: U.S., 21 pp., Cont.-in-part of U.S. Ser. No. 220,821, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5869073	A	19990209	US 1996-663269	19961213
US 5490938	A	19960213	US 1993-170510	19931220
US 5817325	A	19981006	US 1996-742580	19961028
US 5849311	A	19981215	US 1996-736823	19961028
US 6264936	B1	20010724	US 1998-151878	19980911

PRIORITY APPLN. INFO.:
US 1993-170510 A2 19931220
US 1994-220821 B2 19940331
WO 1994-US14636 W 19941219
US 1996-736823 A3 19961028
US 1996-663269 A2 19961213

AB A liq. compn. for applying a non-leachable **antimicrobial** layer or coating on a surface comprises a soln., dispersion or suspension of a biguanide polymer, a crosslinker reacted with the biguanide polymer to form an adduct, and an **antimicrobial metal, metal** salt or **metal** complex, wherein the **metal, metal** salt or **metal** complex forms a complex with the adduct, and wherein the **antimicrobial** layer or coating does not release **biocidal** levels of leachables into a contacting soln. A

coating contained **polyhexamethylene** biguanide, **AgI**, and 4,4'-**methylene**-bis(**N,N-diglycidylaniline**).

IT **28768-32-3DP**, 4,4'-**Methylenebis**(**N,N-diglycidylaniline**), reaction product with **polyhexamethylene** biguanide
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**antimicrobial** liq. coating compns. and methods for using them)

IT **7783-96-2**, **Silver** iodide
RL: MOA (Modifier or additive use); USES (Uses)
(**antimicrobial** liq. coating compns. and methods for using them)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:64534 CAPLUS
DOCUMENT NUMBER: 130:130028
TITLE: Liquid dispenser, capable of maintaining the sterility of sterile solutions.
INVENTOR(S): Sawan, Samuel P.; Subramanyam, Sundar; Yurkovetskiy, Alexander
PATENT ASSIGNEE(S): Biopolymerix, Inc., USA; Surfacine Development Company, LLC
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 891712	A1	19990120	EP 1998-115331	19941219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
US 5490938	A	19960213	US 1993-170510	19931220

PRIORITY APPLN. INFO.: US 1993-170510 A 19931220
US 1994-220821 A 19940331
EP 1995-906664 A3 19941219

AB A liq. compn. comprising a non-**metallic** polycationic or polyanionic **antimicrobial** material, an **antimicrobial metal**, **metal** salt or **metal** complex and an org. crosslinking agent, is provided. The compn. provides a nonleachable **antimicrobial** coating on a substrate surface, such as the filter attached to the dispenser nozzle. In one example, the polycationic **antimicrobial** material is a chain-extended poly(hexamethylene biguanide) or the reaction product of poly(hexamethylene biguanide) with 10-chorodecanethiol (prepn. given), and the **antimicrobial metal** is **Ag**.

IT **7440-22-4**, **Silver**, biological studies
7783-96-2, **Silver** iodide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(coating on liq. dispenser, capable of maintaining the sterility of sterile solns.)

IT **28768-32-3**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (crosslinking agent in coating on liq. dispenser, capable of maintaining the sterility of sterile solns.)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:816008 CAPLUS
DOCUMENT NUMBER: 130:48710
TITLE: Contact-killing nonleaching **antimicrobial** materials
INVENTOR(S): Sawan, Samuel P.; Shalon, Tadmor; Subramanyam, Sundar; Yurkovetskiy, Alexander
PATENT ASSIGNEE(S): Biopolymerix, Inc., UK; Surfacine Development Company LLC
SOURCE: U.S., 15 pp., Cont.-in-part of U.S. Ser. No. 663,269.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5849311	A	19981215	US 1996-736823	19961028
US 5869073	A	19990209	US 1996-663269	19961213
WO 9818330	A1	19980507	WO 1997-US19369	19971028
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9850888	A1	19980522	AU 1998-50888	19971028
AU 723898	B2	20000907		
EP 939591	A1	19990908	EP 1997-913782	19971028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001508041	T2	20010619	JP 1998-520645	19971028
TW 381029	B	20000201	TW 1998-87106497	19980428
US 6264936	B1	20010724	US 1998-151878	19980911

PRIORITY APPLN. INFO.:

US 1996-663269	A2	19961213
US 1993-170510	A2	19931220
US 1994-220821	B2	19940331
WO 1994-US14636	W	19941219
US 1996-736823	A	19961028
US 1996-742580	A	19961028
WO 1997-US19369	W	19971028

AB An **antimicrobial** material is described which can be used to form on the surface on a substrate a nonleaching

antimicrobial coating or layer which kills microorganisms on contact. The coating or layer is a combination of an org. matrix immobilized on the surface of the substrate, having **biocidal metallic** materials assocd. with the matrix in a nonleaching manner. A suitable matrix is **polyhexamethylene** biguanide, cross-linked with **N,N-bismethylediglycidylanilide**. A suitable **biocidal metallic** material is **silver** iodide. When a microorganism contacts the coating or layer, the **biocidal metallic** material is transferred to the microorganism in amts. sufficient to kill it.

IT **7783-96-2, Silver** iodide
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(contact-killing nonleaching **antimicrobial** material contg.)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:649980 CAPLUS
DOCUMENT NUMBER: 129:281066
TITLE: Contact-killing **antimicrobial** devices
INVENTOR(S): Sawan, Samuel P.; Shalon, Tadmor; Subramanyam, Sundar; Yurkovetskiy, Alexander
PATENT ASSIGNEE(S): Biopolymerix, Inc., UK; Surfacine Development Company, L.L.C.
SOURCE: U.S., 15 pp., Cont.-in-part of U.S. 5,824,325. CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5817325	A	19981006	US 1996-742580	19961028
US 5869073	A	19990209	US 1996-663269	19961213
WO 9818330	A1	19980507	WO 1997-US19369	19971028
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9850888	A1	19980522	AU 1998-50888	19971028
AU 723898	B2	20000907		
EP 939591	A1	19990908	EP 1997-913782	19971028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001508041	T2	20010619	JP 1998-520645	19971028
TW 381029	B	20000201	TW 1998-87106497	19980428
US 6126931	A	20001003	US 1998-151495	19980911

PRIORITY APPLN. INFO.: US 1996-663269 A2 19961213

US 1993-170510	A2	19931220
US 1994-220821	B2	19940331
WO 1994-US14636	W	19941219
US 1996-736823	A	19961028
US 1996-742580	A	19961028
WO 1997-US19369	W	19971028

AB Contact killing **antimicrobial** articles, devices and formulations are described. The articles, devices or formulations contain a nonleaching **antimicrobial** material which is a combination of an org. matrix having **biocidal metallic** materials nonleachably assocd. with the matrix. The **antimicrobial** material may used to form an **antimicrobial** coating or layer on a surface of the article or device, or may be dispersed in a vehicle or carrier to form a topical antiseptic or disinfectant, or solid shape having contact killing **antimicrobial** properties. When a microorganism contacts the article, device, or formulation, the **biocidal metallic** material is transferred to the microorganism in amts. sufficient to kill it. Thus, **AgI**-coated **polyhexamethylene** biguanide-**N,N-bismethylene diglycidylaniline** adduct (1.5:1) killed a variety of microorganisms.

IT **7783-96-2, Silver** iodide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coated on biguanide polymers; contact-killing **antimicrobial** devices)

IT **7440-22-4, Silver,** biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(salts, coated on biguanide polymers; contact-killing **antimicrobial** devices)

L13 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:293325 CAPLUS
DOCUMENT NUMBER: 129:8647
TITLE: Contact-killing nonleaching **antimicrobial** materials
INVENTOR(S): Sawan, Samuel P.; Shalon, Tadmor; Subramanyan, Sundar; Yurkovetskiy, Alexander
PATENT ASSIGNEE(S): Surfacine R Consumer Products, Llc, USA; Biopolymerix, Inc.
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9818330	A1	19980507	WO 1997-US19369	19971028

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,

CM, GA, GN, ML, MR, NE, SN, TD, TG

US 5817325	A	19981006	US 1996-742580	19961028
US 5849311	A	19981215	US 1996-736823	19961028
AU 9850888	A1	19980522	AU 1998-50888	19971028
AU 723898	B2	20000907		
EP 939591	A1	19990908	EP 1997-913782	19971028
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001508041	T2	20010619	JP 1998-520645	19971028

PRIORITY APPLN. INFO.:

US 1996-736823	A	19961028
US 1996-742580	A	19961028
US 1996-663269	A2	19961213
WO 1997-US19369	W	19971028

AB An **antimicrobial** material is described which can be used to form on the surface on a substrate a nonleaching **antimicrobial** coating or layer which kills microorganisms on contact. The nonleaching **antimicrobial** coating or layer is a combination of an org. matrix immobilized on the surface of the substrate, having **biocidal metallic** materials, such as **silver**, nonleachably assocd. with the matrix. The org. matrix is a polycationic material, such as a biguanide compd., i.e. polyhexamethylene biguanide. The polycationic material is cross-linked with **N,N-methylene bisglycidylaniline**, or similar compd. When a microorganism contacts the coating or layer, the **biocidal metallic** material is transferred to the microorganism in amts. sufficient to kill it. Methods of applying the coating or layer to a substrate also are provided.

IT **7440-22-4, Silver**, biological studies
7783-96-2, Silver iodide
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(contact-killing nonleaching **antimicrobial** materials contg.)

IT **28768-32-3D**, reaction product with polyhexamethylene biguanide
RL: MOA (Modifier or additive use); USES (Uses)
(matrix in contact-killing nonleaching **antimicrobial** materials)

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, PROMT' ENTERED AT 11:30:08 ON 31 MAY 2002)

L14 1 S L11
L15 2 S L12
L16 5 S L13
L17 5 S L14 OR L15 OR L16
L18 5 DUP REM L17 (0 DUPLICATES REMOVED)

L18 ANSWER 1 OF 5 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2001-316000 [33] WPIDS
DOC. NO. CPI: C2001-097252
TITLE: Amphiphilic **antimicrobial** film-forming compositions comprising **antimicrobial** polymer comprising cationic subunits, anionic compound comprising anionic and hydrophobic groups and liquid carrier is used to disinfect substrate surfaces.
DERWENT CLASS: A97 C03 D22

INVENTOR(S): BRADY, M J; SAWAN, S P; SUBRAMANYAM, S; YURKOVETSKIY, A
PATENT ASSIGNEE(S): (SURF-N) SURFACINE DEV CO LLC
COUNTRY COUNT: 90
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001017357	A1	20010315	(200133)*	EN	34

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2000035184 A 20010410 (200137)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001017357	A1	WO 2000-US6053	20000308
AU 2000035184	A	AU 2000-35184	20000308

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000035184	A	Based on	WO 200117357

PRIORITY APPLN. INFO: US 1999-392842 19990909
AN 2001-316000 [33] WPIDS
AB WO 200117357 A UPAB: 20010615
NOVELTY - Novel amphiphilic **antimicrobial** film-forming compositions comprise:

(a) an **antimicrobial** polymer comprising cationic subunits;

(b) an anionic compound comprising an anionic group and a hydrophobic group; and

(c) a liquid carrier,

in which the ratio of the number of anionic groups to the number of cationic subunits in the composition is 0.05-0.95.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for

(1) methods of preparing film-forming compositions by;

(a) providing a solution comprising a polar organic solvent and an **antimicrobial** polymer comprising cationic subunits; and

(b) adding to the solution an anionic compound comprising an anionic group and a hydrophobic group; where the final ratio of the number of anionic groups to the number of cationic subunits is between 0.05 and 0.95.

(2) methods of immobilizing **antimicrobial** polymers on substrate by;

(a) preparing a solution comprising the solution; and

(b) contacting a substrate with the solution such that the **antimicrobial** polymer and the anionic compound form a water resistant film on the substrate; and

(3) methods of depositing **antimicrobial** films on

substrates.

ACTIVITY - **Antimicrobial**.

MECHANISM OF ACTION - None given.

USE - The amphiphilic **antimicrobial** film-forming compositions are used to disinfect substrate surfaces (claimed). They are also used to provide deodorizing actions of extended duration on the skin, even after exposure to moisture and sweat, and to monitor a subject's compliance with sterile or sanitary procedures e.g. in healthcare environments and food establishments. They may be used to as hard surface disinfectants and sanitizers, antifoulant coatings and topical dermal antiseptics .

ADVANTAGE - The compositions provide sustained **antimicrobial** disinfectant action upon contact with microorganisms for prolonged periods without reapplication. They provide both initial and residual contact-killing disinfectant activity and do not release their **antimicrobial** components into contacting liquids at levels that result in solution disinfection. The compositions provide an **antimicrobial** polymer produced provides a non-leachable, non-eluting microbial barrier that is capable of rapid sanitation and persistent **antimicrobial** activity that is substantially undiminished, even upon contact with water. They do not produce skin irritation or cytotoxicity due to their non-eluting character..

Dwg.0/3

L18 ANSWER 2 OF 5 WPIDS (C) 2002 THOMSON DERWENT

ACCESSION NUMBER: 2000-302980 [26] WPIDS

DOC. NO. CPI: C2000-091758

TITLE: Topical dermal **antimicrobial** compositions contain **antimicrobial** complex that provides sustained **antimicrobial** disinfecting action upon contact with microorganisms.

DERWENT CLASS: A96 D21 D22 E19 E32

INVENTOR(S): GOLDBLATT, M; MANIVANNAN, G; SAWAN, S P; SUBRAMANYAM, S; YURKOVETSKIY, A

PATENT ASSIGNEE(S): (SURF-N) SURFACINE DEV CO LLC

COUNTRY COUNT: 88

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000015036	A1	20000323	(200026)*	EN	52

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW

AU 9962472	A	20000403	(200034)		
EP 1111995	A1	20010704	(200138)	EN	

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 2000015036 A1	WO 1999-US20976	19990910
AU 9962472 A	AU 1999-62472	19990910
EP 1111995 A1	EP 1999-949638	19990910
	WO 1999-US20976	19990910

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9962472	A	Based on	WO 200015036
EP 1111995	A1	Based on	WO 200015036

PRIORITY APPLN. INFO: US 1999-116013P 19990115; US 1998-99925P 19980911

AN 2000-302980 [26] WPIDS

AB WO 200015036 A UPAB: 20000613

NOVELTY - A topical **antimicrobial** composition comprises organic, polycationic, polymeric, **antimicrobial** material that can bind non-leachably to a surface that he **antimicrobial** material does not release **biocidal** amounts of leachables into a contacting solution.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a dermal composition comprising an organic, polycationic, **antimicrobial** polymer that binds to skin upon application;

(2) a method for enhancing the duration of efficacy of a dermal antiseptic formulation, the method comprising: mixing a polycationic **antimicrobial** material and a dermal antiseptic formulation, such that the **antimicrobial** material is capable of forming a self-preserving, **antimicrobial** barrier upon application to the skin, thereby enhancing the **antimicrobial** efficacy of the formulation by imparting residual **antimicrobial** activity;

(3) a method for imparting moisture and sweat resistance to extend the duration of efficacy of a skin deodorant formulation, the method comprising:

(i) providing a dermal deodorant formulation; and

(ii) mixing a polycationic **antimicrobial** material as above in additional claim (2) in the formulation;

(4) a method for detecting the presence of **antimicrobial** compositions on a surface, the method comprising:

(i) providing on the surface the **antimicrobial** composition as above comprising a marker;

(ii) exposing the surface to a detector capable of detecting the presence of a marker on the surface; and

(5) a method for monitoring a subject's compliance with aseptic procedures, the method comprising:

(i) providing to the subject the **antimicrobial** composition as above; and

(ii) exposing the subject to a detector capable of detecting the presence of the marker as above.

USE - The antiseptic composition comprises a surgical scrub, a pre-operative skin preparation, healthcare personnel hand wash or an antiseptic hand wash and comprises an **antimicrobial** soap/cream/hand sanitizer/deodorant or gel. The presence of the **antimicrobial** compound on skin can be determined readily.

ADVANTAGE - The self preserving **antimicrobial** polymer

exhibits sanitizing properties when applied on skin, and forms microbial barrier films in situ that are moisture and sweat resistant, and provide persistent or extended duration residual **antimicrobial** activity in water contacting systems and deodorizing action that is moisture and sweat resistant.
Dwg.0/5

L18 ANSWER 3 OF 5 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2001-069754 [08] WPIDS
DOC. NO. NON-CPI: N2001-052713
DOC. NO. CPI: C2001-019287
TITLE: Immobilization of biomolecules on the surface of medical devices comprises contacting the surface with a reaction mixture comprising the biomolecule, oxidizing **metal** ions and an ethylenically unsaturated monomer.
DERWENT CLASS: A96 B07 D16 D22 P34
INVENTOR(S): CAHALAN, L; CAHALAN, P; KOULIK, E; VERHOEVEN, M
PATENT ASSIGNEE(S): (MEDT) MEDTRONIC INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6143354	A	20001107	(200108)*		8

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6143354	A	US 1999-245840	19990208

PRIORITY APPLN. INFO: US 1999-245840 19990208
AN 2001-069754 [08] WPIDS
AB US 6143354 A UPAB: 20010207
NOVELTY - Method (A) for making a medical device having a biomolecule immobilized on the surface of a solid polymeric substrate containing less than 10% water comprising contacting the surface with a reaction mixture comprising a biomolecule, a source of oxidizing **metal** ions and an ethylenically unsaturated monomer, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method (B) for modifying the surface characteristics of a solid polymeric substrate containing less than 10% water, comprising contacting the surface of the solid polymeric material with a reaction mixture comprising a biomolecule, oxidizing **metal** ions and an ethylenically unsaturated monomer under conditions effective to immobilize the biomolecule on the substrate surface in a one-step process;

(2) a method for modifying the surface characteristics of a **metal** surface coated with a vinylsilane, comprising contacting the surface with a reaction mixture comprising a biomolecule, oxidizing **metal** ions,and an ethylenically unsaturated monomer under conditions effective to immobilize the biomolecule on the surface in a one-step process;

(3) a method for delivering a biologically active agent,

comprising contacting the surface of a solid polymeric material containing less than 10% water with a reaction mixture comprising the biologically active agent, oxidizing **metal** ions and an ethylenically unsaturated monomer under conditions effective to immobilize the biologically active agent on the surface in a one-step reaction process, and contacting the product with a physiological solution under conditions effective to release the biologically active agent;

(4) a modified polymeric material prepared by method (B); and

(5) a medical device prepared by method (A).

USE - The method is useful for making medical devices, e.g. blood oxygenators, blood pumps, blood sensors, **tubing**, vascular grafts, stents, pacemaker leads, heart valves, **catheters** and guide wires, with biocompatible surfaces.

Dwg.0/0

L18 ANSWER 4 OF 5 WPIDS (C) 2002 THOMSON DERWENT

ACCESSION NUMBER: 2000-685942 [67] WPIDS

CROSS REFERENCE: 1995-246098 [32]; 1998-271813 [24]; 1998-556342 [47]; 1999-069662 [06]

DOC. NO. CPI: C2000-208586

TITLE: Method for killing microorganisms involves contacting microorganism with **antimicrobial** coating comprising polymer matrix complexed to surface accessible **antimicrobial** material.

DERWENT CLASS: A96 B07 D22

INVENTOR(S): SAWAN, S P; SUBRAMANYAM, S; YURKOVETSKIY, A

PATENT ASSIGNEE(S): (BIOP-N) BIOPOLYMERIX INC; (SURF-N) SURFACINE DEV CO LLC

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 6126931	A	20001003	(200067)*		15

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 6126931	A	CIP of	US 1993-170510	19931220
		CIP of	US 1994-220821	19940331
		CIP of	WO 1994-US14636	19941219
		Div ex	US 1996-742580	19961028
		CIP of	US 1996-663269	19961213
			US 1998-151495	19980911

FILING DETAILS:

PATENT NO	KIND		PATENT NO
US 6126931	A	CIP of	US 5490938
		Div ex	US 5817325

PRIORITY APPLN. INFO: US 1998-151495 19980911; US 1993-170510 19931220; US 1994-220821 19940331; WO 1994-US14636 19941219; US 1996-742580

19961028; US 1996-663269 19961213

AN 2000-685942 [67] WPIDS

CR 1995-246098 [32]; 1998-271813 [24]; 1998-556342 [47]; 1999-069662 [06]

AB US 6126931 A UPAB: 20001223

NOVELTY - A contact killing, non-leaching **antimicrobial** coating formed on substrate, comprises polycationic polymer matrix bound or complexed to surface accessible **antimicrobial** material such that the coating does not release **biocidal** amount of elutables into surrounding environment. The coating is contacted with microorganism to permit direct transfer of the **antimicrobial** material to the microorganism to be killed.

USE - For killing microorganisms using **antimicrobial** material in devices such as **catheters**, urological devices, blood collection and transfer devices, tracheotomy devices, intraocular lenses, personal care products such as toothbrush, contact lens cases, dental equipment, health care products, baby care products, personal hygiene products, household products, food preparation surfaces and packaging, water storage, treatment and delivery systems, fire sensitive systems and laboratory and scientific equipment.

ADVANTAGE - The **antimicrobial** material coating surfaces are capable of killing microorganism without leaching significant amount of the **antimicrobial** material into the surrounding environment while maintaining long term efficacy. The unique nature of the **antimicrobial** coating results in high **biocidal** activity. The microorganisms succumb only on contact with the **antimicrobial** material due to the non-leaching property of the material. The coated surface has ability to remain completely inert in solution in the absence of microorganism contamination and remain viable over multiple organism challenges with no decrease in their bioactivity. The possibility of microbial colonization, is eliminated by using the **biocidal** material.

The **antimicrobial** material is manufactured on large scale with minimum cost and is applicable to a variety of liquid formulations over wide range of solution viscosity, including artificial tears, saline, anti-glaucoma and ocular hypertension drugs and contact lens cleaning solutions. The **antimicrobial** material is readily adoptable for the delivery of other type of medicaments or solutions where preservatives have been used, such as ear and nasal drug formulations.

Dwg.0/3

L18 ANSWER 5 OF 5 WPIDS (C) 2002 THOMSON DERWENT

ACCESSION NUMBER: 1999-518404 [43] WPIDS

DOC. NO. CPI: C1999-151306

TITLE: Disinfectant composition not for bodily use providing **anti-microbial** action.

DERWENT CLASS: A35 A82 A96 A97 D21 D22 D25 E19 E23 E24 F06 F07

INVENTOR(S): SAWAN, S P; SUBRAMANYAM, S; YURKOVETSKIY, A

PATENT ASSIGNEE(S): (SURF-N) SURFACINE DEV CO LLC

COUNTRY COUNT: 85

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

WO 9940791 A1 19990819 (199943)* EN 43
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW
AU 9925994 A 19990830 (200003)
EP 1054596 A1 20001129 (200063) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
US 6180584 B1 20010130 (200108)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9940791	A1	WO 1999-US3050	19990211
AU 9925994	A	AU 1999-25994	19990211
EP 1054596	A1	EP 1999-905961	19990211
		WO 1999-US3050	19990211
US 6180584	B1 Provisional	US 1998-74456P	19980212
		US 1999-248861	19990211

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9925994	A	Based on	WO 9940791
EP 1054596	A1	Based on	WO 9940791

PRIORITY APPLN. INFO: US 1998-74456P 19980212; US 1999-248861 19990211

AN 1999-518404 [43] WPIDS

AB WO 9940791 A UPAB: 20000320

NOVELTY - A disinfectant composition comprises film forming **antimicrobial** material and **antimicrobial** **metallic** material in carrier and forms non-permanent, adherent, water-insoluble film and film does not elute **antimicrobial** materials into contacting liquids at levels to impart disinfection to liquids and **metallic** material is non-leachably bound to or associated with the film.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of providing an **antimicrobial** layer on a substrate comprising the use of the above composition

USE - The disinfectant is a hard surface disinfecting agent for hospital, institutional, kitchen or bathroom use, as cleaner disinfectant or floor or wall cleaner. The disinfectant is also skin disinfectant, antiseptic, sanitizer or protectant and useful for treating skin contacting device or article such as diapers, wound dressing, wipes, masks and surgical gowns. The disinfectant can also be used for treating non-body contacting devices/articles such as hospital bed rails, carpets and rugs.

ADVANTAGE - The composition provides sustained **antimicrobial** action for prolonged periods, without the necessity for reapplication. The coating provides surface disinfection by contact killing mechanism, and does not release its components into contacting solutions at levels that would result in solution disinfection. The polymeric film formed can be removed with

alcohol base.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic representation of the polymer/**biocide** complex as applied to a surface.

Dwg.1a/8

Query 2
catheter

(FILE 'CAPLUS' ENTERED AT 11:36:08 ON 31 MAY 2002)

L4 9 SEA FILE=REGISTRY ABB=ON PLU=ON SILVER/CN OR ("SILVER (AG2)"/CN OR "SILVER (AG3)"/CN OR "SILVER (AG31+)"/CN OR "SILVER (AG4)"/CN OR "SILVER (AG5+)"/CN OR "SILVER (AG51+)"/CN) OR "SILVER (AG6)"/CN OR "SILVER (AG7+)"/CN

L5 4 SEA FILE=REGISTRY ABB=ON PLU=ON COPPER/CN OR ("COPPER (CU21+)"/CN OR "COPPER (CU31+)"/CN OR "COPPER (CU4)"/CN)

L6 15 SEA FILE=REGISTRY ABB=ON PLU=ON ("SILVER IODIDE"/CN OR "SILVER IODIDE (107AGI)"/CN OR "SILVER IODIDE (109AGI)"/CN OR "SILVER IODIDE (AG(I3))"/CN OR "SILVER IODIDE (AG125I)"/CN OR "SILVER IODIDE (AG129I)"/CN OR "SILVER IODIDE (AG131I)"/CN OR "SILVER IODIDE (AG2I2)"/CN OR "SILVER IODIDE (AG2I3)"/CN OR "SILVER IODIDE (AG3I3)"/CN OR "SILVER IODIDE (AG4I)"/CN OR "SILVER IODIDE (AG4I4)"/CN OR "SILVER IODIDE (AG5I6)"/CN OR "SILVER IODIDE (AG6I)"/CN OR "SILVER IODIDE (AG8I)"/CN OR "SILVER IODIDE (AGI)"/CN)

L7 28 SEA FILE=REGISTRY ABB=ON PLU=ON L4 OR L5 OR L6

L8 2 SEA FILE=REGISTRY ABB=ON PLU=ON ("BENZALKONIUM BROMIDE"/CN OR "BENZALKONIUM CHLORIDE"/CN)

L19 169 SEA FILE=CAPLUS ABB=ON PLU=ON (L7 OR SILVER OR AG OR COPPER OR CU OR AGI OR METAL###) AND (L8 OR BENZALKON? OR BENZ? ALKON?)

L20 6 SEA FILE=CAPLUS ABB=ON PLU=ON L19 AND (CATHETER? OR TUBE OR TUBING)

L21 6 L20 NOT L13

L21 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:441112 CAPLUS
DOCUMENT NUMBER: 135:51153
TITLE: Alkaline detergents for hemodialyzers
INVENTOR(S): Ishida, Mitsuo
PATENT ASSIGNEE(S): Aisei K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001161811	A2	20010619	JP 1999-353338	19991213

AB The detergents contain water-sol. surfactants having HLB .gtoreq.7, bactericides, org. acid salts capable of exchanging **metal** ions, and optionally water-sol. org. solvents and solubilizers and are adjusted to pH 8-12. The detergents effectively remove proteins, lipids, Ca, **metals**, and their complexes and are storage stable. A detergent (pH 10.8) was prepd. from Na C13-14 alkylsulfonates 8.0, polyoxyethylene C12 alkyl ether 2.0, polyoxyethylene coco fatty acid ethanolamide 8.0,

monoisopropanolamine 5.0m propylene glycol monobutyl ether 12.0, N-methyl-2-pyrrolidone 2.0, **benzalkonium** chloride 2.0, isopropylmethylphenol 0.5, EDTA-4Na 5.0, Na citrate 3.0, Na xylenesulfonate 6.0, Na cumenesulfonate 8.0%, and H2O balance. Good cleaning power of the detergent for a silicone **tube** soiled with lipids, proteins, and lime was also shown.

L21 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:616264 CAPLUS
DOCUMENT NUMBER: 134:105678
TITLE: Biomaterials to prevent nosocomial infections: is **silver** the gold standard?
AUTHOR(S): Stickler, David J.
CORPORATE SOURCE: Cardiff School of Biosciences, Cardiff University, Cardiff, UK
SOURCE: Current Opinion in Infectious Diseases (2000), 13(4), 389-393
CODEN: COIDE5; ISSN: 0951-7375
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review, with 42 refs. Although many antimicrobial biomaterials have shown promising activity in vitro, few anti-infective prosthetic devices manufd. from these materials have yet achieved any degree of success in clin. trials. Controversy surrounds the exploitation of antibiotics in these materials and the microbiol. methods that have been used in the clin. trials on the devices. **Silver**-contg. biomaterials and anti-infective coatings with chlorhexidine, **benzalkonium** chloride and triclosan are used.
IT **7440-22-4, Silver**, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biomaterials to prevent nosocomial infections contg. **silver** and other antimicrobials)
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:109032 CAPLUS
DOCUMENT NUMBER: 130:329159
TITLE: In vitro antimicrobial activity of a new antiseptic central venous **catheter**
AUTHOR(S): Li, Chunhua
CORPORATE SOURCE: Abbott Laboratories, Morgan Hill, CA, 95037, USA
SOURCE: Journal of Biomaterials Applications (1999), 13(3), 206-223
CODEN: JBAPEL; ISSN: 0885-3282
PUBLISHER: Technomic Publishing Co., Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A central venous **catheter** coated with a new antiseptic combination, **silver** chloride (AgCl) and **benzalkonium** chloride (BKC) in a polymer matrix, was developed. The antimicrobial efficacy and the ability to prevent surface colonization, after elution in both serum and saline, were evaluated and compared to **catheters** coated with **silver** sulfadiazine/chlorhexidine. The results of in vitro

assays demonstrated that the AgCl-BKC coated **catheters** had a broad spectrum of activity against bacteria and C. albicans and prolonged antimicrobial activity for extn. periods of up to 30 days. These data suggest that AgCl-BKC coated **catheters** may provide another soln. for redn. of **catheter**-related infections.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:169182 CAPLUS
DOCUMENT NUMBER: 124:235749
TITLE: Liquid dispenser for sterile solutions, such as sterile eye-care liquids
INVENTOR(S): Sawan, Samuel P.; Shalon, Tadmor; Subramanyam, Sundar; Yurkovetskiy, Alexander
PATENT ASSIGNEE(S): Biopolymerix, Inc., USA
SOURCE: U.S., 14 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5490938	A	19960213	US 1993-170510	19931220
EP 891712	A1	19990120	EP 1998-115331	19941219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
US 5681468	A	19971028	US 1996-599810	19960212
US 5869073	A	19990209	US 1996-663269	19961213
US 6264936	B1	20010724	US 1998-151878	19980911

PRIORITY APPLN. INFO.:
US 1993-170510 A 19931220
US 1994-220821 A 19940331
EP 1995-906664 A3 19941219
WO 1994-US14636 W 19941219
US 1996-736823 A3 19961028
US 1996-663269 A2 19961213

AB A multidose sterile liq. dispenser for dispensing sterile solns., e.g., for prescription and nonprescription materials (e.g., Hypo Tears or sterile saline), comprises a container for storing the sterile liq., a nozzle mounted on the container, and a membrane filter with pores coated with a **metallic** material, e.g., **Ag**, Ag2O, or **Ag** salt, and an antiviral or antibacterial agent (**benzalkonium** chloride thiol, BAC-S). The filter is coated with **Ag** by processes such as vapor phase deposition and electroless coating.

IT **7440-22-4**, **Silver**, uses **7440-22-4D**, **Silver**, amine complexes
RL: TEM (Technical or engineered material use); USES (Uses)
(liq. dispenser for sterile solns., such as sterile eye-care liqs.)

L21 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1972:505634 CAPLUS
DOCUMENT NUMBER: 77:105634

TITLE: Prosthetic device
INVENTOR(S): Bokros, Jack C.; Ellis, Willard H.
PATENT ASSIGNEE(S): Gulf Oil Corp.
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3677795	A	19720718	US 1969-821080	19690501
CA 948352	A1	19740604	CA 1970-80404	19700417
GB 1282685	A	19720719	GB 1970-1282685	19700423
DE 2021320	A	19701112	DE 1970-2021320	19700430
DE 2021320	B2	19790607		
DE 2021320	C3	19820304		
FR 2041786	A6	19710205	FR 1970-15896	19700430
CH 506285	A	19710430	CH 1970-506285	19700430
JP 50014837	B4	19750530	JP 1970-36916	19700501

PRIORITY APPLN. INFO.: US 1969-821080 19690501

AB Prosthetic devices for human or veterinary use were made by coating a substrate with pyrolytic, essentially isotropic C of d. 1.5 or higher, which after heating in vacuo to remove O, conferred antithrombogenicity. When the substrate was artificial graphite the coating also served to increase the crushing strength 6-fold. Thus **tubes** 9 .times. 7 mm inside diam., wall-thickness 0.5 mm, were levitated by a He current of 6 l./min in a reaction **tube** 3.8 cm in diam., which was then heated to 1350.degree. and propane injected into the He stream. After 40 min the **tubes** were coated with a continuous layer of C approx. 200 .mu. thick; they were then heated in vacuo at 1000.degree. for 6 hr. A sample **tube** was immersed 15 min in 0.1% aq. **benzalkonium** chloride, rinsed, immersed 15 min in normal saline contg. heparin (I), and again rinsed; it was shown to be nonthrombogenic. The strength of graphite was still further augmented by incorporating up to 20% Si (as SiC) in the C coating; the reaction **tube** was 6.3 cm in diam. and the He-propane mixt. (81./min) was bubbled through MeSiCl3. After 1 hr at 1350.degree. a coating 300 .mu. thick was formed, which after treatment with I was likewise nonthrombogenic. **Tubes** of W and Mo, resp., were coated with the pyrolytic C and after treatment with I were nonthrombogenic. **Tubes** of Ta, similarly coated and heated in vacuo were nonthrombogenic without any I treatment.

L21 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1969:474052 CAPLUS
DOCUMENT NUMBER: 71:74052
TITLE: Sterilization of medical and dental instruments
INVENTOR(S): Linder, Fritz; Frostell, Goran; Hesselgren, Sven G.
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3457031	A	19690722	US 1968-759193	19680911

AB Medical and dental instruments are sterilized by placing the instruments in a pressure-resistant and hermetically closable receptacle filled with a soln. of EtOH or PrOH contg. an anticorrosive and a bactericidal agent, each at a concn. of 0.1-5% by wt., together with 1-10% by wt. of a lubricating agent. The receptacle is closed, heated to 120-40.degree., 90-120 psi., held at this temp. 1-5 min., then allowed to cool. The lubricating agent may be a vegetable, castor, or silicone oil. Thus, a no. of pieces of stainless steel bands, 5 .times. 10 mm. in size, having a rough surface, were contaminated with 2 drops of a suspension of 2 parts garden soil and 1 part distd. H2O and were then dried in air for 12 hrs. The contaminated **metal** pieces were put into **tube**-like receptacles which are filled with a soln. contg. EtOH 91, castor oil 5, **benzalkonium** chloride 1, and NaNO2 0.5 g. The tops were screwed on and the **tubes** were placed on a stand and immersed for 1, 5, 10, and 20 min. in a H2O bath at 80.degree.. The **tubes** were then cooled in H2O. The tops were unscrewed, the fluid was poured off, and the **metal** pieces were rinsed in sterile distd. H2O. The pieces were placed in **tubes** contg. 10 ml. Brewer broth or brain-heart infusion. The **tubes** were incubated at 37.degree. and the cultures were read after 1, 3, 5, 7, and 12 days; suspected growth in **tubes** was seeded into new **tubes** and onto blood agar plates for aerobic and anaerobic cultures. Microscopic smears were also performed. In an analogous expt. the receptacles were placed in boiling H2O (100.degree.). Similarly prepd. receptacles were autoclaved at 120-24.degree. 1, 5, 10, and 20 min. The **metal** pieces in the sterilizing soln., heated at 80.degree., 100.degree., and 120.degree., were sterile with a heating period of 20, 1, and 1 min. resp.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, PROMT' ENTERED AT 11:37:41 ON 31 MAY 2002)

L22 49 SEA ABB=ON PLU=ON L20
L23 49 SEA ABB=ON PLU=ON L22 NOT L17
L24 37 DUP REM L23 (12 DUPLICATES REMOVED)
L25 26 SEA ABB=ON PLU=ON L24 AND (BIOCID? OR ANTIMICROB? OR ANTIBACTER? OR BACTERIOCID? OR BACTERICID? OR ANTIINFECT? OR ANTI(W)(MICROB? OR BACTER? OR INFECT?))

L25 ANSWER 1 OF 26 MEDLINE

ACCESSION NUMBER: 1999133389 MEDLINE
DOCUMENT NUMBER: 99133389 PubMed ID: 9934626
TITLE: In vitro **antimicrobial** activity of a new antiseptic central venous **catheter**.
AUTHOR: Li C; Zhang X; Whitbourne R
CORPORATE SOURCE: Abbott Laboratories, Morgan Hill, CA 95037, USA.
SOURCE: JOURNAL OF BIOMATERIALS APPLICATIONS, (1999 Jan) 13 (3) 206-23.
Journal code: JOB; 8813912. ISSN: 0885-3282.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 199903
ENTRY DATE: Entered STN: 19990413
Last Updated on STN: 19990413
Entered Medline: 19990329

AB A central venous **catheter** coated with a new antiseptic combination, **silver** chloride (AgCl) and **benzalkonium** chloride (BKC) in a polymer matrix, was developed. The **antimicrobial** efficacy and the ability to prevent surface colonization, after elution in both serum and saline, were evaluated and compared to **catheters** coated with **silver** sulfadiazine/chlorhexidine. The results of in vitro assays demonstrated that the AgCl-BKC coated **catheters** had a broad spectrum of activity against bacteria and C. albicans and prolonged **antimicrobial** activity for extraction periods of up to 30 days. These data suggest that AgCl-BKC coated **catheters** may provide another solution for reduction of **catheter**-related infections.

L25 ANSWER 2 OF 26 MEDLINE
ACCESSION NUMBER: 96131327 MEDLINE
DOCUMENT NUMBER: 96131327 PubMed ID: 8522776
TITLE: Infection resistance of surface modified **catheters** with either short-lived or prolonged activity.
AUTHOR: Sampath L A; Chowdhury N; Caraos L; Modak S M
CORPORATE SOURCE: Columbia University College of Physicians and Surgeons, New York, New York 10032, USA.
SOURCE: JOURNAL OF HOSPITAL INFECTION, (1995 Jul) 30 (3) 201-10.
Journal code: ID6; 8007166. ISSN: 0195-6701.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199601
ENTRY DATE: Entered STN: 19960219
Last Updated on STN: 19960219
Entered Medline: 19960125

AB It has been suggested that the invasion of microbes into the **catheter** tract occurs mainly at the time of **catheter** insertion. To investigate whether the presence of an **antimicrobial** environment during the initial period after insertion is sufficient to reduce the risk of subsequent **catheter** colonization and infection, we evaluated the use of **benzalkonium** chloride-heparin bonded (BZK-hep) central venous **catheters**, which exhibit short-lived surface **antimicrobial** activity, using a rat subcutaneous model. Bacterial adherence on these **catheters** was determined, seven days after challenging the insertion site with 10(6) cfu of Staphylococcus aureus. A chlorhexidine-**silver** sulphadiazine impregnated **catheter** (Arrowg+ard), with longer lasting surface **antimicrobial** activity, and a hydrophilic coated **catheter** ('Hydrocath'), were evaluated simultaneously for comparison. Unlike Arrowg+ard antiseptic **catheters**, BZK-hep 'Hydrocath' and control **catheters** had significant bacterial adherence on their surface. Arrowg+ard **catheters** were colonized in 19% of the animals compared with

100% in all the other groups (P < 0.05; mean cfu cm-2: control = 1.3 x 10(6), BZK-hep = 4.3 x 10(5), Hydrocath = 2 x 10(5), Arrowg+ard = 71). Our results indicate that **catheters** with short-lived surface **antimicrobial** activity are unlikely to provide long-term protection against **catheter**-related infection. The efficacy of Arrowg+ard **catheters** may be due to the initial high rate of kill and prolonged **antimicrobial** activity.

L25 ANSWER 3 OF 26 MEDLINE
ACCESSION NUMBER: 93195395 MEDLINE
DOCUMENT NUMBER: 93195395 PubMed ID: 8450256
TITLE: Surface **antimicrobial** activity of heparin-bonded and antiseptic-impregnated vascular **catheters**.
COMMENT: Erratum in: J Infect Dis 1993 Nov;168(5):1342
AUTHOR: Mermel L A; Stolz S M; Maki D G
CORPORATE SOURCE: Department of Medicine, Rhode Island Hospital, Providence 02903.
SOURCE: JOURNAL OF INFECTIOUS DISEASES, (1993 Apr) 167 (4) 920-4.
Journal code: IH3; 0413675. ISSN: 0022-1899.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199304
ENTRY DATE: Entered STN: 19930423
Last Updated on STN: 19930423
Entered Medline: 19930412

AB Most Swan-Ganz pulmonary artery **catheters** have heparin bonded to the surface with **benzalkonium** chloride, a cationic surfactant, to reduce thrombosis. Since **benzalkonium** is **bactericidal**, the **antimicrobial** activity of heparin-bonded pulmonary artery **catheters** was investigated in an in vitro assay. Each **catheter** exhibited activity against a wide variety of potential microbial pathogens, including Candida albicans. The magnitude of activity against individual organisms correlated strongly with their in vitro susceptibility to **benzalkonium** chloride (r = .94, P < .002). A chlorhexidine-**silver** sulfadiazine-impregnated **catheter** exhibited even greater activity than the heparin-bonded **catheters** (P = .01). When exposed to serum for 24 h, heparin-bonded **catheters** lost > or = 50% of their **antimicrobial** activity, whereas the activity of the chlorhexidine-**silver** sulfadiazine-impregnated **catheter** was minimally affected. The fortuitous surface **antimicrobial** activity of heparin-bonded **catheters** may account for the low incidence of **catheter**-related bacteremia (mean, 1.0%) compared with Swan-Ganz **catheters** of the same materials but not coated with **benzalkonium**-heparin (mean, 2.8%).

L25 ANSWER 4 OF 26 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2002:167530 BIOSIS
DOCUMENT NUMBER: PREV200200167530
TITLE: Efficacy of antiadhesive, antibiotic and antiseptic coatings in preventing **catheter**-related

infections: Review.
AUTHOR(S): Donelli, G. (1); Francolini, I.
CORPORATE SOURCE: (1) Istituto Superiore di Sanita, Viale Regina Elena 299, 00161, Rome: donelli@iss.it Italy
SOURCE: Journal of Chemotherapy, (December, 2001) Vol. 13, No. 6, pp. 595-606. print.
ISSN: 1120-009X.
DOCUMENT TYPE: General Review
LANGUAGE: English
AB In recent years, central venous **catheters** (CVCs) are increasingly used in clinical practice. However, complications such as local or systemic infections are frequent for both temporary and indwelling vascular **catheters**. Annually, in the United States of America there are more than 200,000 cases of nosocomial bloodstream infections (BSIs), of which 90% are related to the use of an intravascular device. These infections are associated with increased morbidity and mortality, prolonged hospitalization and growing medical costs. Technological treatments of polymer surfaces including coating the **catheter** with **antimicrobial** substances may be promising tools for prevention of **catheter** -associated infections. A large number of surface-treated central venous **catheters** are now commercially available. In this paper the features and the clinical efficacy of different **antimicrobial** coatings are reviewed.

L25 ANSWER 5 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2002156231 EMBASE
TITLE: The promise of novel technology for the prevention of intravascular device-related bloodstream infection. I. Pathogenesis and short-term devices.
AUTHOR: Crnich C.J.; Maki D.G.
CORPORATE SOURCE: Dr. C.J. Crnich, Univ. of Wisconsin Hosp. and Clinics, CSC H4/574, 600 Highland Ave., Madison, WI 53792, United States. dgmaki@facstaff.wisc.edu
SOURCE: Clinical Infectious Diseases, (1 May 2002) 34/9 (1232-1242).
Refs: 128
ISSN: 1058-4838 CODEN: CIDIEL
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
027 Biophysics, Bioengineering and Medical Instrumentation
036 Health Policy, Economics and Management
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Intravascular devices (IVDs) are widely used for vascular access but are associated with substantial risk of development of IVD-related bloodstream infection (BSI). The development of novel technologies, which are based on an understanding of pathogenesis, promises a quantum reduction in IVD-related infections in an era of growing nursing shortages. Infections of short-term IVDs (that is, those in place <10 days), including peripheral venous **catheters**, noncuffed and nontunneled central venous **catheters** (CVCs), and arterial **catheters**, derive mainly from microorganisms colonizing the skin around the insertion site, which most often gain access extraluminally. More-effective cutaneous antiseptics, such as chlorhexidine, a chlorhexidine-impregnated sponge dressing, CVCs

with an **anti-infective** coating, **anti-infective** CVC hubs, and novel needleless connectors, have all been shown to reduce the risk of IVD-related BSI in prospective randomized trials. The challenge for the future will be to identify new preventative technologies and to begin to adapt more widely those technologies already shown to be efficacious and cost-effective.

L25 ANSWER 6 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2001318977 EMBASE
TITLE: Intravascular device-related infections: **Antimicrobial catheters** as a strategy for prevention.
AUTHOR: Chugh T.D.; Khan Z.U.
CORPORATE SOURCE: Dr. T.D. Chugh, Department of Microbiology, Faculty of Medicine, Kuwait University, P.O. Box 24923, Safat 13110, Kuwait. chugh@hsc.kuniv.edu.kw
SOURCE: Journal of Hospital Infection, (2001) 49/1 (1-3). Refs: 14
ISSN: 0195-6701 CODEN: JHINDS
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
017 Public Health, Social Medicine and Epidemiology
036 Health Policy, Economics and Management
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English

L25 ANSWER 7 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2001299345 EMBASE
TITLE: [Modern methods for the prevention of implant-associated infections].
MODERNE METHODEN ZUR PRAVENTION VON IMPLANTATASSOZIIERTEN NOSOKOMIALEN INFEKTIONEN.
AUTHOR: Kohnen W.; Jansen B.
CORPORATE SOURCE: W. Kohnen, Abteileng fur Hygiene, Johannes Gutenberg-Universitat Mainz, Hochhaus Augustusplatz, 55131 Mainz, Germany. kohnen@mail.unimainz.de
SOURCE: Hygiene + Medizin, (2001) 26/7-8 (280-287). Refs: 65
ISSN: 0172-3790 CODEN: HYMEDG
COUNTRY: Germany
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
009 Surgery
027 Biophysics, Bioengineering and Medical Instrumentation
033 Orthopedic Surgery
037 Drug Literature Index
LANGUAGE: German
SUMMARY LANGUAGE: English; German
AB Implant-associated infection (syn. Foreign body infection) is the most important cause for complications associated with the temporary or permanent use of artificial materials (polymers, **metals**, and ceramics) for diagnostic or therapeutic purposes. Infection rates vary from < 1% for orthopedic implants or artificial heart

valves up to 20% and higher for cerebrospinal fluid shunts and left ventricular assist devices. The most common causative organisms in implant-associated infections are staphylococci, especially S. epidermidisand other coagulase negative staphylococci. Microbial adherence, accumulation and biofilm formation are important steps in the pathogenesis of such infections. In recent years the molecular mechanisms have been elucidated in part, providing a potential for new concepts for the prevention of implant-associated infections in the future. Despite this progress removal of an infected biomaterial remains the preferred treatment as host defense mechanisms as well as antibiotic therapy is greatly hampered by the biofilm. The most important measures in the prevention of implant-associated infections are maximum sterile barrier precautions during implantation procedures and insertion of central **catheters** , perioperative antibiotic prophylaxis in implantation surgery and standardised hygienic protocols for **catheter** maintenance and care. This is highlighted for central venous **catheters** by discussing the most important hygienic recommendations for their use. Since several years **antiinfective** biomaterials have been developed some of which are already commercially available and in clinical use. Two of the mostly used **antimicrobial catheters** as well as new developments in this field are discussed with regard to their potential in reducing implant-associated infections.

L25 ANSWER 8 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2000336287 EMBASE
TITLE: In vitro zones of inhibition of coated vascular **catheters** predict efficacy in preventing **catheter** infection with Staphylococcus aureus in vivo.
AUTHOR: Bassetti S.; Hu J.; D'Agostino R.B. Jr.; Sherertz R.J.
CORPORATE SOURCE: R.J. Sherertz, Section on Infectious Diseases, Wake Forest University, School of Medicine, Medical Center Boulevard, Winston-Salem, NC 27157-1042, United States. sherertz@wfubmc.edu
SOURCE: European Journal of Clinical Microbiology and Infectious Diseases, (2000) 19/8 (612-617).
Refs: 27
ISSN: 0934-9723 CODEN: EJCDEU
COUNTRY: Germany
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
027 Biophysics, Bioengineering and Medical Instrumentation
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB This report summarizes data from 35 rabbit model experiments investigating the relationship between in vitro **anti-infective catheter** coating zones of inhibition and in vivo efficacy. The rabbit model studies involving 15 **anti-infective** coatings demonstrate an inverse correlation between the sizes of zones of inhibition of Staphylococcus aureus and both the quantity of Staphylococcus aureus removed from the **catheter** and the risk of a purulent infection. The review of seven previously published clinical trials reveals that the use of

anti-infective coated **catheters**, efficacious in the rabbit model, was associated with a higher success rate than the use of uncoated **catheters** in preventing both Staphylococcus aureus **catheter** colonization (odds ratio: 1.28; 95% confidence interval: 0.84-1.93) and Staphylococcus aureus **catheter**-related bloodstream infection (odds ratio: 3.07; 95% confidence interval: 0.98-9.60) in humans. These findings strongly suggest a correlation between zones of inhibition and in vivo efficacy. In vitro zones of inhibition may serve as a useful screening test for evaluating new **anti-infective** coatings.

L25 ANSWER 9 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2000299621 EMBASE
TITLE: Biomaterials to prevent nosocomial infections: Is **silver** the gold standard?.
AUTHOR: Stickler D.J.
CORPORATE SOURCE: D.J. Stickler, Cardiff School of Biosciences, Cardiff University, Cardiff, United Kingdom. stickler@cardiff.ac.uk
SOURCE: Current Opinion in Infectious Diseases, (2000) 13/4 (389-393).
Refs: 42
ISSN: 0951-7375 CODEN: COIDE5
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 027 Biophysics,. Bioengineering and Medical Instrumentation
004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Although many **antimicrobial** biomaterials have shown promising activity in vitro, few **anti-infective** prosthetic devices manufactured from these materials have yet achieved any degree of success in clinical trials. Controversy surrounds the exploitation of antibiotics in these materials and the microbiological methods that have been used in the clinical trials on the devices. (C) 2000 Lippincott Williams and Wilkins.

L25 ANSWER 10 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2000178335 EMBASE
TITLE: Topical **antibacterial** agents.
AUTHOR: Kaye E.T.
CORPORATE SOURCE: Dr. E.T. Kaye, 65 Walnut Street, Wellesley Hills, MA 02481, United States
SOURCE: Infectious Disease Clinics of North America, (2000) 14/2 (321-339).
Refs: 111
ISSN: 0891-5520 CODEN: IDCAEN
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Topical **antibacterial** agents occupy an important niche of **antimicrobial** therapy for both inpatients and outpatients.

These agents, including antiseptic and antibiotic preparations, are used for prophylaxis and treatment of infection. Prophylactic uses include application for traumatic and surgical wounds, bums, intravascular **catheters**, and eradication of S. aureus nasal carriage. Topical **antibacterial** agents are also used for treatment of primary and secondary pyodermas. Individual **antibacterial** agents have been reviewed. Of note, despite the widespread use of topical **antibacterial** agents, further data on which to guide therapy are needed in many instances.

L25 ANSWER 11 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2000086875 EMBASE
TITLE: The role of antibiotic and antiseptic coated intravascular **catheters** for the prevention of associated infections.
AUTHOR: Elliott T.S.J.
CORPORATE SOURCE: Dr. T.S.J. Elliott, Department of Clinical Microbiology, Queen Elizabeth Hospital, Univ. Hosp. Birmingham NHS Trust, Edgbaston, Birmingham B15 2TH, United Kingdom
SOURCE: CPD Infection, (1999) 1/1 (24-27).
Refs: 22
ISSN: 1468-1668 CODEN: CPDIF3
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
037 Drug Literature Index
027 Biophysics, Bioengineering and Medical Instrumentation
036 Health Policy, Economics and Management
006 Internal Medicine
LANGUAGE: English

L25 ANSWER 12 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2000016780 EMBASE
TITLE: **Anti-infective** efficacy of **silver**-coated medical prostheses.
AUTHOR: Darouiche R.O.
CORPORATE SOURCE: Dr. R.O. Darouiche, Center for Prostheses Infection, Baylor College of Medicine, 1333 Moursund Avenue, Houston, TX 77030, United States.
darouiche.rabih.o@houston.va.gov
SOURCE: Clinical Infectious Diseases, (1999) 29/6 (1371-1377).
Refs: 60
ISSN: 1058-4838 CODEN: CIDIEL
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
027 Biophysics, Bioengineering and Medical Instrumentation
037 Drug Literature Index
LANGUAGE: English

L25 ANSWER 13 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1999394400 EMBASE
TITLE: Can **antimicrobial** central venous **catheters** prevent associated infection?.

AUTHOR: Elliott T.S.J.
CORPORATE SOURCE: T.S.J. Elliott, Department of Clinical Microbiology, Queen Elizabeth Hospital, Birmingham, United Kingdom
SOURCE: British Journal of Haematology, (1999) 107/2 (235-241).
Refs: 72
ISSN: 0007-1048 CODEN: BJHEAL
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
025 Hematology
036 Health Policy, Economics and Management
037 Drug Literature Index
LANGUAGE: English

L25 ANSWER 14 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1998421913 EMBASE
TITLE: **Anti-infective catheters** : Novel strategies to prevent nosocomial infections in oncology.
AUTHOR: Schierholz J.M.; Rump A.F.E.; Pulverer G.; Beuth J.
CORPORATE SOURCE: Dr. J.M. Schierholz, Institute for Med. Microbiology, University of Cologne, Goldenfelsstr 19-21, 50935 Koln, Germany
SOURCE: Anticancer Research, (1998) 18/5 B (3629-3638).
Refs: 133
ISSN: 0250-7005 CODEN: ANTRD4
COUNTRY: Greece
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
016 Cancer
017 Public Health, Social Medicine and Epidemiology
027 Biophysics, Bioengineering and Medical Instrumentation
037 Drug Literature Index
039 Pharmacy
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Intravenous access contributes significantly to the therapeutical success and to the comfort of oncologic patients. The highest risk for bloodstream infections, however is vascular **catheter** -mediated. In oncology high mortality is associated with Pseudomonas aeruginosa, Candida albicans and Staphylococcus aureus sepsis. Besides established hygienic measures, the coupling or incorporation of **antimicrobial** substances to or into **catheter** materials may be a suitable way to prevent the development of **catheter**-associated infections. Here we present a risk-benefit evaluation of different models of **antimicrobial** **catheter** coated with **silver**, antiseptics or antibiotics. The controversial reports on clinical efficacy and the potential of adverse reactions due to **silver** and antiseptic coated **catheters** are discussed. The microbiological, pharmaceutical and physicochemical backgrounds of different types of coating are discussed in detail. Incorporation of **antimicrobial** agents into long-term silicon **catheters** providing a slow release of those substances

through the external and internal surfaces of **catheters** may be the most effective technological innovation for reducing biomaterial-mediated nosocomial infections.

L25 ANSWER 15 OF 26 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 95131544 EMBASE
DOCUMENT NUMBER: 1995131544
TITLE: Prevention of infections caused by central venous **catheters** using an antibiotic or antiseptic coating.
AUTHOR: Bach A.
CORPORATE SOURCE: Klinik fur Anasthesiologie, z.Zt. Hygiene-Institut, Ruprecht-Karls-Universitat, Im Neuenheimer Feld 324,69120 Heidelberg, Germany
SOURCE: Hygiene + Medizin, (1995) 20/4 (191-204).
ISSN: 0172-3790 CODEN: HYMEDG
COUNTRY: Germany
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
027 Biophysics, Bioengineering and Medical Instrumentation
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English; German

AB Intravascular **catheters** are significant sources of infection in high-risk patients such as those in intensive care or undergoing hemodialysis. This becomes apparent, though, only with a differential microbiological diagnosis. The difficulties of diagnosis and therapy after a **catheter** has already been colonised by bacteria make preventive measures especially necessary. Critical evaluation of the need for an intravascular **catheter**, and strict adherence to established rules of hygiene in inserting and caring for the **catheter**, are essential components of prevention. Aside from many somewhat controversial preventive measures that have been discussed, specific decontamination can be carried out using the local antibiotic mupirocin to reduce **catheter**-associated infections with Staphylococcus carriers. **Catheter** systems impregnated with antibiotics or antiseptics are a new attempt at prevention of **catheter**-associated infections. These inhibit the proliferation of adhering bacteria through extended release of the active substance. Several such 'slow delivery systems' have already been used with clinical success. The main effort of the current research is in developing **catheter** systems which prevent even the first step in pathogenesis of **catheter**-associated infections, adhesion of the bacteria to the **catheter** polymer. This is done, for instance, by coating the plastic with **silver**. In the near future, the use of modified **catheters** may facilitate a reduction in the number of **catheter**-associated infections to below the limit previously attainable after exhaustion of all preventive measures.

L25 ANSWER 16 OF 26 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2001-514175 [56] WPIDS
DOC. NO. NON-CPI: N2001-380962
DOC. NO. CPI: C2001-153531
TITLE: Medical devices such as stents are covered with a surface covering and coating to provide the device

with desirable surface characteristics and optionally altering the surface area of the device.

DERWENT CLASS: A96 B07 D22 P34
INVENTOR(S): COPENHAGEN, D M; HULLIHEN, D G; SCHOTT, R L; WHITBOURNE, R J
PATENT ASSIGNEE(S): (STSB-N) STS BIOPOLYMERS INC
COUNTRY COUNT: 93
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001036008	A2	20010525	(200156)*	EN	27

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2001016097 A 20010530 (200156)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001036008	A2	WO 2000-US31314	20001115
AU 2001016097	A	AU 2001-16097	20001115

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001016097	A	Based on	WO 200136008

PRIORITY APPLN. INFO: US 1999-442891 19991118
AN 2001-514175 [56] WPIDS
AB WO 200136008 A UPAB: 20011001
NOVELTY - A medical device comprises: an insertable substrate; an elastic polymeric covering adherent to a surface of the substrate; and an elastic polymeric coating adherent to the covering, wherein the coating has properties selected from lubriciousness, non-lubriciousness, flexible and expansile.

DETAILED DESCRIPTION - Also provided is an INDEPENDENT CLAIM for a method of modifying the surface properties of an insertable medical device comprising providing the substrate of the device with an elastomeric polymeric covering, and coating the covering with a polymeric coating with properties as above.

USE - Insertable medical devices are provided which have modified surface properties which improve the performance of the device during use. these medical devices include guide wires, forceps, trochars, stents and **catheters**. The coating may also be used as a drug reservoir for delivery of drug to specific locations.

ADVANTAGE - The coating provide the device with desirable surface properties such as lubricity or lack thereof, while the coating and covering are flexible, elastic and expansile so that they can conform to the shape and other changes that the device experiences during its use.

Dwg.0/0

L25 ANSWER 17 OF 26 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2000-686838 [67] WPIDS
DOC. NO. NON-CPI: N2000-507874
DOC. NO. CPI: C2000-208799
TITLE: Polymeric medical devices having **antimicrobial** properties, e.g. patches or **catheters**, comprising triclosan and **silver** compounds,.
DERWENT CLASS: A96 B07 D22 E19 P34
INVENTOR(S): MODAK, S; SAMPATH, L
PATENT ASSIGNEE(S): (UYCO) UNIV COLUMBIA NEW YORK; (MODA-I) MODAK S; (SAMP-I) SAMPATH L
COUNTRY COUNT: 23
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000057933	A1	20001005	(200067)*	EN	54
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: AU CA JP					
AU 2000040620	A	20001016	(200106)		
US 6224579	B1	20010501	(200126)		
US 2001010016	A1	20010726	(200146)		
EP 1165155	A1	20020102	(200209)	EN	
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 2000057933	A1		WO 2000-US8692	20000330
AU 2000040620	A		AU 2000-40620	20000330
US 6224579	B1		US 1999-281872	19990331
US 2001010016	A1	Cont of	US 1999-281872	19990331
			US 2001-777121	20010205
EP 1165155	A1		EP 2000-920019	20000330
			WO 2000-US8692	20000330

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000040620	A	Based on	WO 200057933
US 2001010016	A1	Cont of	US 6224579
EP 1165155	A1	Based on	WO 200057933

PRIORITY APPLN. INFO: US 1999-281872 19990331; US 2001-777121 20010205
AN 2000-686838 [67] WPIDS
AB WO 200057933 A UPAB: 20010110
NOVELTY - **Antiinfective**, polymeric medical devices comprising a combination of triclosan and/or other chlorinated phenols, and **silver** compounds, without chlorhexidine are new.
DETAILED DESCRIPTION - An **anti-infective** medical article is prepared by exposing a polymer-containing medical

article to a treatment solution comprising 0.3-1.5% of a **silver** salt and 0.1 20% triclosan or another chlorinated phenol, where the solution does not contain chlorhexidine or a chlorhexidine salt.

An INDEPENDENT CLAIM is included for **anti-infective** medical articles prepared by exposing a polymer-containing medical article to a treatment solution comprising 0.1-5% of a **metal** compound, 0.1-20% triclosan, and either 0.5-10% of a hydrogel or 1-5% of an antiinflammatory agent; and optionally an additional **antimicrobial** agent.

USE - **Antimicrobial** medical articles, especially polytetrafluoroethylene patch (claimed) or vascular **catheter** comprising 100-600 micro g **silver** per cm2.

ADVANTAGE - The combination of triclosan with **silver** compounds is synergistic. The medical articles prevent or inhibit infection while avoiding undesirable adverse reactions to chlorhexidine found previously using combinations of triclosan with chlorhexidine. The surface of medical articles (e.g. **catheters**) impregnated with triclosan and **silver** compounds is also smoother and shinier compared with **catheters** impregnated with triclosan and chlorhexidine.

Dwg.0/0

L25 ANSWER 18 OF 26 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1999-600523 [51] WPIDS
CROSS REFERENCE: 1988-284631 [40]; 1989-017289 [03]; 1991-254439 [35]; 1992-249398 [30]; 1992-258907 [31]; 1992-414916 [50]; 1994-263241 [32]; 1996-411460 [41]; 1998-007443 [01]; 2001-557143 [57]
DOC. NO. NON-CPI: N1999-442644
DOC. NO. CPI: C1999-174794
TITLE: New latex product useful as e.g. gloves, condoms, **tubing**, kidney shunts or braces for teeth, comprises a **biocide** layer between two cured liquid latex layers.
DERWENT CLASS: A96 B07 D21 D22 F07 P32 P73
INVENTOR(S): LESTER, D J; PLAMTHOTTAM, S S; SHLENKER, R R T; SOLOMONS, C C
PATENT ASSIGNEE(S): (BIOB-N) BIO BARRIER INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 5965276	A	19991012	(199951)*		16

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 5965276	A	CIP of	US 1987-74629	19870717
		CIP of	US 1988-143184	19880113
		CIP of	US 1988-246337	19880919
		CIP of	US 1990-482978	19900222
		CIP of	US 1990-536772	19900612
		CIP of	US 1990-536773	19900612
		Cont of	US 1992-825546	19920124
		CIP of	US 1992-976881	19921116

CIP of	US 1994-291002	19940815
Cont of	US 1995-476843	19950607
	US 1997-917050	19970813

FILING DETAILS:

PATENT NO	KIND		PATENT NO
US 5965276	A	CIP of	US 4771482
		CIP of	US 4919966
		CIP of	US 4935260
		CIP of	US 5045341
		CIP of	US 5128168
		CIP of	US 5130159
		Cont of	US 5165953
		CIP of	US 5338565
		CIP of	US 5549924
		Cont of	US 5679399

PRIORITY APPLN. INFO: US 1995-476843 19950607; US 1987-74629 19870717; US 1988-143184 19880113; US 1988-246337 19880919; US 1990-482978 19900222; US 1990-536772 19900612; US 1990-536773 19900612; US 1992-825546 19920124; US 1992-976881 19921116; US 1994-291002 19940815; US 1997-917050 19970813

AN 1999-600523 [51] WPIDS

CR 1988-284631 [40]; 1989-017289 [03]; 1991-254439 [35]; 1992-249398 [30]; 1992-258907 [31]; 1992-414916 [50]; 1994-263241 [32]; 1996-411460 [41]; 1998-007443 [01]; 2001-557143 [57]

AB US 5965276 A UPAB: 20011031

NOVELTY - New latex product with a **biocide** barrier comprises:

(1) a layer comprising cured liquid latex;

(2) a second layer coating (1) and comprising a **biocide** effective as a coagulant for liquid latex; and

(3) a third layer coating (2) and comprising cured liquid latex.

(1) and (3) are free of **biocide**. (2) is at least partially bonded to (1) and (3).

USE - The latex product is in the form of gloves, condoms, diaphragms, slippers, overshoes, sterile bands, **catheters**, **tubings**, drapes, gut openings, mouthpieces, nipples, intra-gastric nasal **tubes**, kidney shunts, dams for teeth, braces for teeth, sub-clavian vein and artery shunts or colostomy bags (claimed).

ADVANTAGE - The latex product provides improved protection against the transmission of viruses e.g. hepatitis and human immunodeficiency virus (HIV), and other pathogens and harmful agents. Needles and other membrane penetrating objects are disinfected. Indicators may be included which can show, by a change in appearance, feel or temperature, when viruses, other pathogens or harmful chemicals are present, or when the membrane has been breached.

Dwg.0/4

L25 ANSWER 19 OF 26 WPIDS (C) 2002 THOMSON DERWENT

ACCESSION NUMBER: 1994-263241 [32] WPIDS

CROSS REFERENCE: 1988-284631 [40]; 1989-017289 [03]; 1991-254439 [35]; 1992-249398 [30]; 1992-258907 [31]; 1992-414916 [50]; 1996-411460 [41]; 1998-007443 [01]; 1999-600523 [51]; 2001-557143 [57]
DOC. NO. CPI: C1994-120444
TITLE: Forming **biocide** barriers in latex, soln. or liq. polymer formed articles - by spraying or dipping using a **biocide** soln..
DERWENT CLASS: A96 D22 E19
INVENTOR(S): PLUNKETT, J D; SHLENKER, R R T; SMITH, C S; SOLOMONS, C C
PATENT ASSIGNEE(S): (SHLE-I) SHLENKER R R T
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 5338565	A	19940816	(199432)*		4

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
US 5338565	A	CIP of	US 1987-74629	19870717
		CIP of	US 1988-143184	19880113
		CIP of	US 1988-246337	19880919
		CIP of	US 1990-482978	19900222
		Cont of	US 1990-536773	19900612
		Cont of	US 1992-825546	19920124
			US 1992-976881	19921116

FILING DETAILS:

PATENT NO	KIND		PATENT NO
US 5338565	A	CIP of	US 4771482
		CIP of	US 4919966
		CIP of	US 4935260
		CIP of	US 5045341
		Cont of	US 5128168
		Cont of	US 5165953

PRIORITY APPLN. INFO: US 1990-536773 19900612; US 1987-74629 19870717; US 1988-143184 19880113; US 1988-246337 19880919; US 1990-482978 19900222; US 1992-825546 19920124; US 1992-976881 19921116
AN 1994-263241 [32] WPIDS
CR 1988-284631 [40]; 1989-017289 [03]; 1991-254439 [35]; 1992-249398 [30]; 1992-258907 [31]; 1992-414916 [50]; 1996-411460 [41]; 1998-007443 [01]; 1999-600523 [51]; 2001-557143 [57]
AB US 5338565 A UPAB: 20011031
Mfr. of materials or articles having a **biocide** barrier comprises (A) (i) forming a coating of a polymer latex, polymer dissolved in a solvent or a liq. polymer on a former; (ii) applying a coating of **biocide**; and then (iii) repeating step (i); or (B) applying a **biocide** coating on a former and then forming a polymer coating as per step (A) (i) above.

Pref. the **biocide** is gentian violet dextron sulphate, **benzalkonium**, betadyne, an acriflavine or acridine dye, mecurochrome, an **Ag** salt or 2 blue-green algae extract.

Application of the **biocide** layer is pref. by spraying or dipping in a soln. of 0.10-5 wt.% **biocide** concn., with the wt. ratio **biocide** coating in method (A): first coating being 0.05-0.3. In method (A) the **biocide** coating is applied with the first polymer coating in a vat gel state and opt. after leaching of the first coating. The second polymeric coating is applied after complete drying of the **biocide** layer.

USE - Chemical barriers against disease transmission are obtd., with methods (A) and (B) being specifically claimed for the mfr. of gloves, condoms, diaphragms, slippers, overshoes, sterile bands, **catheters**, **tubing**, drapes, gut openings, mouthpieces, nipples, intragastric nasal **tubes**, kidney shunts, teeth dams or braces, sub-clavian vein and artery shunts and colostomy bags.

Dwg.0/0

L25 ANSWER 20 OF 26 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1992-249398 [30] WPIDS
CROSS REFERENCE: 1988-284631 [40]; 1989-017289 [03]; 1991-254439 [35]; 1992-258907 [31]; 1992-414916 [50]; 1994-263241 [32]; 1996-411460 [41]; 1998-007443 [01]; 1999-600523 [51]; 2001-557143 [57]
DOC. NO. CPI: C1992-111285
TITLE: Latex material having a **biocide** barrier e.g. dextran - formed by applying to former a liq. latex **biocide** coating and second liq. latex coating.
DERWENT CLASS: A32 A96 D22 E19 P21 P32 P34 P73
INVENTOR(S): PLUNKETT, J D; SHLENKER, R R T; SMITH, C S; SOLOMONS, C C; PLUNKETF, J D; BECK, R T
PATENT ASSIGNEE(S): (SHLE-I) SHLENKER R R T; (BECK-I) BECK R T
COUNTRY COUNT: 21
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 5128168	A	19920707	(199230)*		4
AU 9189920	A	19930708	(199334)#		
EP 557625	A1	19930901	(199335)#	EN	5
R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL PT SE					
CA 2058210	A	19930621	(199337)#		
JP 05277175	A	19931026	(199347)#		4
CN 1075616	A	19930901	(199422)#		
AU 654162	B	19941027	(199444)#		
CA 2058210	C	19950214	(199514)#		
EP 924061	A1	19990623	(199929)#	EN	
R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL PT SE					
EP 557625	B1	19991006	(199946)#	EN	
R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL PT SE					
DE 69230096	E	19991111	(199954)#		
ES 2141097	T3	20000316	(200021)#		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

US 5128168	A	CIP of	US 1987-74629	19870717
		CIP of	US 1988-143184	19880113
		CIP of	US 1988-246337	19880919
		CIP of	US 1990-482978	19900222
			US 1990-536773	19900612
AU 9189920	A		AU 1991-89920	19911219
EP 557625	A1		EP 1992-300575	19920123
CA 2058210	A		CA 1991-2058210	19911220
JP 05277175	A		JP 1992-25329	19920212
CN 1075616	A		CN 1992-101170	19920226
AU 654162	B		AU 1991-89920	19911219
CA 2058210	C		CA 1991-2058210	19911220
EP 924061	A1	Div ex	EP 1992-300575	19920123
			EP 1999-103415	19920123
EP 557625	B1		EP 1992-300575	19920123
		Related to	EP 1999-103415	19920123
DE 69230096	E		DE 1992-630096	19920123
			EP 1992-300575	19920123
ES 2141097	T3		EP 1992-300575	19920123

FILING DETAILS:

PATENT NO	KIND		PATENT NO
US 5128168	A	CIP of	US 4771482
		CIP of	US 4919966
		CIP of	US 4935260
		CIP of	US 5045341
AU 654162	B	Previous Publ.	AU 9189920
EP 924061	A1	Div ex	EP 557625
EP 557625	B1	Related to	EP 924061
DE 69230096	E	Based on	EP 557625
ES 2141097	T3	Based on	EP 557625

PRIORITY APPLN. INFO: US 1990-536773 19900612; US 1987-74629 19870717; US 1988-143184 19880113; US 1988-246337 19880919; US 1990-482978 19900222; AU 1991-89920 19911219; EP 1992-300575 19920123; CA 1991-2058210 19911220; JP 1992-25329 19920212; CN 1992-101170 19920226; EP 1999-103415 19920123; DE 1992-630096 19920123

AN 1992-249398 [30] WPIDS

CR 1988-284631 [40]; 1989-017289 [03]; 1991-254439 [35]; 1992-258907 [31]; 1992-414916 [50]; 1994-263241 [32]; 1996-411460 [41]; 1998-007443 [01]; 1999-600523 [51]; 2001-557143 [57]

AB US 5128168 A UPAB: 20011031

A method of making a latex material having a **biocide** barrier comprising: (a) applying a first coating of liq. latex onto a former, (b) applying a coating of a **biocide** effective as a coagulant for a liq. latex over the first latex coating already on the former and (c) applying a second coating of liq. latex over the **biocide** and the first latx coating.

The **biocide** may be e.g. dextran sulphate, **benzalkonium**, betadyne, gentian violet, acriflavine or acridine dyes, mercurochrome, **silver** salts or an extract of blue-green algae.

Also claimed is a method of making a latex material having a **biocide** barrier comprising (a) applying a coating of **biocide** effective as a coagulant for a liq. latex onto a former and (b) applying a coating of liq. latex over the **biocide** coating already on the former.

USE/ADVANTAGE - The methods provide a chemical barrier against the transmission of disease-causing microbes and other harmful agents through the latex material. The latex material may be fashioned as a glove, condom, diaphragm, slipper, overshoe, sterile bands, **catheters**, latex **tubing**, drapes, gut openings, mouthpieces, baby nipples, intra gastric nasal **tubes**, kidney shunts, sub-clavian vein and artery shunts or colostomy bagsex m

Dwg.0/0

ABEQ EP 557625 A UPAB: 19931119

A method of making a latex material having a **biocide** barrier comprising: (a) applying a first coating of liq. latex onto a former, (b) applying a coating of a **biocide** effective as a coagulant for a liq. latex over the first latex coating already on the former and (c) applying a second coating of liq. latex over the **biocide** and the first latex coating.

The **biocide** may be e.g. dextran sulphate, **benzalkonium**, betadyne, gentian violet, acriflavine or acridine dyes, mercurochrome, **silver** salts or an extract of blue-green algae.

Also claimed is a method of making a latex material having a **biocide** barrier comprising (a) applying a coating of **biocide** effective as a coagulant for a liq. latex onto a former and (b) applying a coating of liq. latex over the **biocide** coating already on the former.

USE/ADVANTAGE - The methods provide a chemical barrier against the transmission of disease-causing microbes and other harmful agents through the latex material. The latex material may be fashioned as a glove, condom, diaphragm, slipper, overshoe, sterile bands, **catheters**, latex **tubing**, drapes, gut openings, mouthpieces, baby nipples, intra gastric nasal **tubes**, kidney shunts, sub-clavian vein and artery shunts or colostomy bags etc.

Dwg.0/1

ABEQ JP 05277175 A UPAB: 19940111

Prodn. of latex covering comprises immersion of a mould in liq. latex, partic. in gel form, **biocidal** coating and liq. latex, successively to give a **biocidal** barrier between the two latex layers.

USE/ADVANTAGE - Infection preventive gloves, condoms and sheaths providing **biocidal** layer at wt. ratios to latex at 0.10-5 wt.% and as coagulation agent for latex.

Dwg.0/0

L25 ANSWER 21 OF 26 JICST-EPlus COPYRIGHT 2002 JST

ACCESSION NUMBER: 960081739 JICST-EPlus

TITLE: The comparison of **antibacterial** activity of a disinfectant for MRSA. Effect measurement by capacity test.

AUTHOR: KONDO YUKIO

CORPORATE SOURCE: Omesankeibyoin

SOURCE: Iyaku Janaru (Medicine & Drug Journal), (1995) vol. 31, no. 12, pp. 3042-3046. Journal Code: Z0650A (Fig.

2, Tbl. 4, Ref. 4)
ISSN: 0287-4741
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
LANGUAGE: Japanese
STATUS: New
AB **Antibacterial** activity was stronger in the order of isodine palm (I) = Hoesmin (II) > **benzalkonium** chloride (III) > isodine > Milton.comparison with the previous test showed the appearance of disinfectant-resistant fungi.III did not show any **antibacterial** activity at 0.1% as specified in the package insert. In addition, III is not cost-effective.Based on the hand finger washing time of nurses and fungous resistance, Ome Sankei Hospital uses I and II at 2-month intervals.More fungi were detected in sputum than in **catheter** urine. Therefore, disinfectants with the **antibacterial** activity for sputum-derived fungi should be used.

L25 ANSWER 22 OF 26 JICST-EPlus COPYRIGHT 2002 JST
ACCESSION NUMBER: 900385881 JICST-EPlus
TITLE: Skin disinfectants for nerve blocks and their long-lasting **antimicrobial** effects.
AUTHOR: SAKURAGI TADAKAZU; HIGA KAZUO; DAN KENJIRO; OKUBO MAKOTO
CORPORATE SOURCE: Fukuoka Univ., School of Medicine
SOURCE: Masui (Japanese Journal of Anesthesiology), (1990) vol. 39, no. 3, pp. 328-334. Journal Code: F0838A (Fig. 2, Tbl. 1, Ref. 18)
CODEN: MASUAC; ISSN: 0021-4892
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
LANGUAGE: Japanese
STATUS: New
AB Although epidural **catheterization** has many advantages in anesthesia and in the treatment of acute pain, spinal epidural abscess is a serious complication after the procedure. Since it is presumed that the epidural space is contaminated by bacteria on the skin via the space around the **catheter**, it seems important to clarify bacterial re-growth after application of skin disinfectant. Therefore, bacterial growths on human back 1, 2 days, and 1 week after application of disinfectants were studied in summer and winter to elucidate whether there are differences between the two seasons. Four disinfectants, 0.5% chlorhexidine in 80% ethyl alcohol(CA), 0.2% **benzalkonium** in 80% ethyl alcohol(BA), 10% povidone iodine(PI), and 80% ethyl alcohol(EA) were applied on the back of 76 adult healthy volunteers, and the specimens were taken by agar-contact method. The frequencies of positive cultures for bacteria were higher in summer than in winter. The frequencies of positive culture in summer after the applications of CA, BA, PI, and EA were as follows, respectively: 5%, 20%, 5%, and 40% after 1 day; 47%, 50%, 60%, and 50% after 2 days; and 82%, 82%, 70%, and 64% after 1 week. In winter, these frequencies after the application of CA, BA, PI, and EA were as follows, respectively: 0%, 0%, 18%, and 18% after 1 day; 5%, 26%, 32%, and 58% after 2 days; and 21%, 21%, 32%, and 42% after 1 week. We conclude that when an epidural **catheter** is in situ, more frequent skin disinfection has to be carried out, preferably by CA, in summer than in winter, since the presence of sweat on the back seems to hasten the re-growth of

bacteria. (author abst.)

L25 ANSWER 23 OF 26 JICST-EPlus COPYRIGHT 2002 JST
ACCESSION NUMBER: 890085141 JICST-EPlus
TITLE: Bacterial and clinical studies of disinfectants for self-**catheterization**.
AUTHOR: ESA ATSUNOBU; IKEGAMI MASAHISA; SUGIYAMA TAKAHIDE; PARK Y-C; KURITA TAKASHI; IIMORI MASAKI KANEKO SHIGEO
CORPORATE SOURCE: Kinki Univ., Faculty of Medicine
Asahikawa Medical College
SOURCE: Nippon Hinyokika Gakkai Zasshi (Japanese Journal of Urology), (1988) vol. 79, no. 10, pp. 1663-1668.
Journal Code: Z0766A (Fig. 1, Tbl. 7, Ref. 8)
ISSN: 0021-5287
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
LANGUAGE: Japanese
STATUS: New
AB Although clean intermittent self-**catheterization** is of value for treatment of dysfunction of the urinary bladder and has been adopted in many clinics, few studies have reported how to keep the **catheter** sterile and adequate for clinical use with systemic bacteriological examination. This paper reports **bacteriocidal** effect of Povidon iodine, Chlorhexidine digluconate and **Benzalkonium** chloride at various concentrations against four species of bacteria: E. coli, S. marcescens, P. aeruginosa and S. aureus cultured from urine and hematoma of patients in our clinic. Chlorhexidine digluconate, at 0.05 pervent, failed to impede the growth of S. aureus. However, a solution of 0.1 percent of Povidone iodine sterilized all samples of bacteria solution, which contained 108 to 109cfu/ml. Among several lubricants for comfortable introduction of the **catheter** into the urinary bladder glycerin was the best, since it was safe, hydrophilic, and low in cost and a good soluvent for Povidone iodine. Glycerin solution with 0.1 percent of Povidone iodine was prepared as a sterilizing lubricant of the **catheter**. However, acutal content of effective iodine in glycerin solution was revealed to vary depending on procedures of preparing the solution. The content of effective iodine was 28.4 percent of the theoretical value when the glycerin solution was autoclaved after mixing with Povidone iodine, while it was 83 percent of the theoretical value when glycerin was autoclaved prior to adding Povidone iodine. The value of the iodine content was stable in clinical use thereafter. Glycerin solution with 0.1 percent of Povidone iodine is of use for self-**catheterization** because of its sterilizing, lubricant and stable character.(author abst.)

L25 ANSWER 24 OF 26 PROMT COPYRIGHT 2002 Gale Group

ACCESSION NUMBER: 2000:438083 PROMT
TITLE: Health & Beauty Aids.
SOURCE: International Product Alert, (19 Oct 1998) Vol. 15, No. 20, pp. 24.
ISSN: 1086-1238.
PUBLISHER: Marketing Intelligence Service Ltd.
DOCUMENT TYPE: Newsletter
LANGUAGE: English

WORD COUNT: 4818
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

AB Baby Products
THIS IS THE FULL TEXT: COPYRIGHT 1998 Marketing Intelligence Service Ltd.

Subscription: $600.00 per year. Published semimonthly. 6473 D Route 64, Naples, NY 14512-9726.

L25 ANSWER 25 OF 26 PROMT COPYRIGHT 2002 Gale Group

ACCESSION NUMBER: 1998:107958 PROMT
TITLE: Table 10 Wound Dressing Sales to the Professional Market
SOURCE: Genesis Report-Rx, (1 Dec 1997) pp. N/A.
ISSN: 1061-2270.
LANGUAGE: English
WORD COUNT: 3298
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

AB Occlusive Percent Traditional Total
Percent of Dressings Professional Market Year Growth Market Percent Growth Percent Growth
1987 54% 32% 0.5% 16.6% 1991 14% 47% 4.3% 8.6% 1995 13.8% 54% 5.2% 9.6% 1996 12.3% 55% 5.2% 9% 2000 16.5% 75% 2.9% 12.8%
Source: POV Inc, "Wound Dressings, Artificial Skin, Cell Therapy, and Related Therapeutics ... Evolving Long-Term Business Opportunities in Wound Management" 1997
Sales of Wound Dressings By Leading Company
The leading companies in the wound dressings markets are:
Ranked #1, Johnson & Johnson (New Brunswick, NJ) had total estimated 1996 wound care product sales of $334 million, or 42% of the total dressing smarket. Johnson & Johnson has the broadest participation in the wound dressings market, with products in virtually every segment. However, more than 90% of Johnson & Johnson's dressings business is in the gauze and adhesive bandage markets - two large, slow-growth commodity markets. While Johnson & Johnson has dominant share positions in the gauze and adhesive bandage markets, the company's concentration in the slow-growth markets limits to its ability to increase sales.
Tyco/Kendall has the second-largest share in the wound dressings market, with total estimated sales for 1996 of $130 million. Tyco/Kendall accounts for 16% of the total market and participates in eight of the nine market segments. The company has implemented an aggressive business development program over the past 3 years by introducing products in seven markets, divesting its consumer-oriented Curad and Futuro brands, and concentrating on the professional segment. The company derives 94% of its sales from the adhesive bandages and gauze. Tyco/Kendall appears determined to reverse this dependence on low-growth markets, but the company's success remains undecided.
Bristol-Myers Squibb (New York, NY) ranks #3 in wound dressings, with $67 million in 1996 sales through its ConvaTec wound care division. Most of these sales are in hydrocolloid dressings, followed by biologicals and the recently acquired foam line. Although Bristol-Myers Squibb leads the hydrocolloids market, the company is faced with aggressive competitors that are encroaching on its dominant position. Bristol-Myers Squibb is milking its hydrocolloid business, and sales of those products are consequently

slipping.
THIS IS AN EXCERPT: COPYRIGHT 1997 The Genesis Group Associates, Inc.

L25 ANSWER 26 OF 26 PROMT COPYRIGHT 2002 Gale Group

ACCESSION NUMBER: 97:90386 PROMT
TITLE: NEW DRUG APPROVALS OF 1996--Part 1
SOURCE: Drug Topics, (3 Feb 1997) pp. 66.
ISSN: 0012-6616.
LANGUAGE: English
WORD COUNT: 3373
FULL TEXT IS AVAILABLE IN THE ALL FORMAT

AB INTRODUCTION
The year 1996 saw a virtual flood of 53 new chemical entities approved by the Food & Drug Administration. This is in sharp contrast to the paltry 28 approved in 1995. Why the big difference in number of approvals? Industry insiders believe that the heavy political pressure exerted on the Food & Drug Administration to reform itself and the continued implementation of user fees, which expedites the review of drug applications, may have contributed to the embarrassment of riches this time around. Of the 53 drugs, 18 are being reviewed in this initial section of our three-part coverage on the topic. (One of the newly approved entities, Ivy Block, from EnviroDerm Pharmaceuticals, an over-the-counter treatment for the prevention of poison ivy, oak, and sumac rash, will not be included in our review.) Table 1 summarizes the approvals by generic name, trade name, FDA approval rating, manufacturer, and indication.
ADAPALENE (Galderma Laboratories)
Differin Adapalene joins a growing arsenal of medications used to treat acne. It is one of two products approved since December 1995 for this indication. Adapalene is of the retinoid class and, in clinical trials, has compared favorably to tretinoin.
Indications: Adapalene 0.1% topical gel is indicated for the treatment of acne vulgaris.
Pharmacology: The mechanism of action of retinoids in treating acne is thought to be related to the control of either gene transcription or repression by their binding to retinoic acid receptors (RARs) in cell nuclei. Adapalene has been shown to bind to RAR, thereby modulating cellular differentiation, keratinization, and inflammatory processes. Its anti-inflammatory properties appear to be greater than for any of the other retinoid agents. Adapalene normalizes the differentiation of follicular epithelial cells and reduces microcomedome formation.
Clinical improvement appears to take longer with this medication (eight to 12 weeks) than with either tretinoin (two to three weeks) or azelaic acid (about four weeks). Contraindications: Patients hypersensitive to adapalene or any of the components of the gel vehicle should not receive this medication.
Precautions: Patients will be more sensitive to sunlight and sunlamps while using this medication. Also, cold and windy conditions may increase the irritation caused by adapalene. Patients should use sunscreen and wear protective clothing to avoid excessive burning and/or irritation.
THIS IS AN EXCERPT: COPYRIGHT 1997 Medical Economics Publishing

FILE 'HOME' ENTERED AT 11:40:41 ON 31 MAY 2002